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Economist**

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# The future of energy



**It's closer than you think**

**A 14-PAGE  
SPECIAL REPORT**

Home
This week's print edition
Daily news analysis
Opinion <div>▶ All opinion</div> <div>Leaders</div> <div>Letters to the Editor</div> <div>Blogs</div> <div>Columns</div> <div>KAL's cartoons</div> <div>Correspondent's diary</div> <div>Economist debates</div>
World politics <div>▶ All world politics</div> <div>Politics this week</div> <div>International</div> <div>United States</div> <div>The Americas</div> <div>Asia</div> <div>Middle East and Africa</div> <div>Europe</div> <div>Britain</div>
Special reports
Business <div>▶ All business</div> <div>Business this week</div> <div>Management</div> <div>Business education</div>
Finance and economics <div>▶ All finance and economics</div> <div>Economics focus</div> <div>Economics A-Z</div>
Markets and data <div>▶ All markets and data</div> <div>Daily chart</div> <div>Weekly indicators</div> <div>World markets</div> <div>Currencies</div> <div>Rankings</div> <div>Big Mac index</div>
Science and technology <div>▶ All science and technology</div> <div>Technology Quarterly</div>
Books and arts <div>▶ All books and arts</div> <div>Style guide</div>
People <div>▶ People</div> <div>Obituaries</div>
Diversions
Audio and video <div>▶ Audio and video library</div> <div>Audio edition</div>
Research tools <div>▶ All research tools</div> <div>Articles by subject</div> <div>Backgrounders</div> <div>Economics A-Z</div> <div>Special reports</div> <div>Style guide</div>
Country briefings <div>▶ All country briefings</div> <div>China</div> <div>India</div> <div>Brazil</div> <div>United States</div> <div>Russia</div>
Cities guide

Print Edition

June 21st 2008

The future of energy

A fundamental change is coming sooner than you might think: leader



The world this week

Politics this week

Business this week

KAL's cartoon

Leaders

Energy

The future of energy

The future of the European Union

Just bury it

Zimbabwe

Africans, please help

North America

The dangers of Mexico-bashing

The curse of untidiness

DNA all over the place

Letters

On the Democrats, Norman Stone, South Africa, Afghanistan, the Federal Reserve, oil, corporal punishment, Hong Kong, suburbs

Briefing

Europe's Roma

Bottom of the heap

United States

Political segregation

The Big Sort

Unions and the election

The voice of labour

The Supreme Court

Stuck with Guantánamo

Pleasing the base

Twist and shout

Flooding in Iowa

As high as an elephant's eye

Visas

Beauty and the Geek

Lexington

The class warrior

The Americas

Mexico and the United States

A wary friendship

Venezuela's economy

A funny way to beat inflation

Drugs in the Andes

The unstoppable crop

Argentina's farm dispute

Cristina's climbdown

Canada

Femme fatale

Asia

Afghanistan

Still in the fight

Afghanistan's opium poppies

No quick fixes

Beijing Olympics

Limbering up for the games


China, Japan and Taiwan

Profit over patriotism

Nepal

Two into one won't go

Myanmar after the cyclone

Previous print editions	Subscribe
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More print editions and covers »	

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A special report on the future of energy

The power and the glory

Trade winds

Dig deep

Another silicon valley?

Beneath your feet

Grow your own

The end of the petrolhead

Life after death

Flights of fancy

Sources and acknowledgments

Offer to readers

Business

Yahoo!, eBay and Amazon

The three survivors

eBay's legal woes

Handbagged

Biotechnology

Getting personal

Beer

A bid for Bud

Technology and climate change

Computing sustainability

Bollywood and Hollywood

Close encounters

Airbus

Gathering clouds

Face value

Enter the quiet giant

Briefing

Robots

Nothing to lose but their chains

Robot surgery

Tiny, careful cuts

Finance & Economics

Short-selling

Nasty, brutish and short

Buttonwood

From buy-backs to sell-backs

Investment banks

Sachs appeal

Activist investors

Derailed?

Vietnam

Flu symptoms

Investment in Brazil

Money magnet

The dollar

FEER of falling

Economics focus

Emissions suspicions

Science & Technology

The endowment effect

It's mine, I tell you



## Politics this week

Jun 19th 2008

From The Economist print edition

**Israel** agreed to an Egyptian-brokered truce with Hamas, the **Palestinian** Islamist movement which runs the Gaza Strip. It is hoped that the truce will stop Hamas and other groups from firing rockets at Israel and that Israel will no longer carry out raids on Gaza. The Palestinians of Gaza also hope that the blockade imposed by Israel will gradually, if at first partially, be lifted. [See article](#)

Soon after the United States said that violence in **Iraq** was at its lowest for four years, a lorry blew up in a crowded market in a Shia district of Baghdad, killing at least 63 people, the worst such incident for three months. The Americans blamed a Shia militant group supplied by Iran.

Overcoming long-standing opposition from China and Russia, the UN Security Council issued a "presidential statement" calling on **Sudan** to "co-operate fully" with efforts by the International Criminal Court at The Hague to end impunity for perpetrators of atrocities in Darfur.

South Africa's president, Thabo Mbeki, again flew to **Zimbabwe** to try to mediate between President Robert Mugabe and the opposition Movement for Democratic Change, as violence increased ahead of a presidential run-off scheduled for June 27th. [See article](#)

Simon Mann, a former British special-forces officer, went on trial in **Equatorial Guinea** for his alleged involvement in a coup attempt against the west African country's government in 2004. Several of his co-accused have already received long jail sentences; Mr Mann has spent four years in a Zimbabwean prison. [See article](#)

Getty Images



## The friendly skies

At their first formal talks since 1999, **China** and **Taiwan** agreed to establish regular direct flights, and to allow more tourists from the mainland to visit Taiwan. Meeting in Beijing, representatives from the two sides agreed that the service will begin on July 4th, with 18 return flights each weekend.

**China** and **Japan** reached agreement in long-running talks over the joint development of oil- and gas-fields in disputed waters in the East China Sea. [See article](#)

**Taiwan** withdrew its representative from **Japan** in protest at the sinking of a Taiwanese fishing boat by the Japanese coastguard near the Diaoyutai, or Senkaku, islands, claimed by China, Japan and Taiwan.

Taliban insurgents, including two suicide-bombers, attacked the main prison in Kandahar in southern **Afghanistan**, freeing some 1,200 prisoners, of whom about 450 were Taliban members. Subsequently, NATO and Afghan forces launched an offensive in the region around Kandahar. [See article](#)

## Seeking approval

In an apparent climbdown, **Argentina's** president, Cristina Fernández de Kirchner, asked the country's Congress to debate increased taxes on farm exports, which her government introduced by decree in March, triggering months of protests by farmers. [See article](#)

The United Nations said that **coca cultivation** in the Andean countries rose by 16% last year. The biggest increase was in Colombia, despite a massive government effort to eradicate the crop there. [See article](#)

**Venezuela's** leftist president, Hugo Chávez, named Alí Rodríguez, a veteran communist, as his finance minister. His job is to cut an inflation rate that has climbed above 30%, but without cooling an already slowing economy. [See article](#)

An aide to **Canada's** public-works minister resigned over his relationship with Julie Couillard, a Quebec lobbyist with past ties to criminal biker gangs. Ms Couillard is the former girlfriend of Maxime Bernier, who was recently sacked as foreign minister after Ms Couillard said he had left sensitive documents at her home. [See article](#)

## At least Irish eyes are smiling

The **European Union** huffed and puffed after Ireland's voters rejected its new Lisbon treaty. The Irish prime minister, Brian Cowen, was asked to explain the vote to an EU summit. Several leaders grumbled that a small country should not block a treaty backed by everybody else. Ireland was the only country to hold a referendum on Lisbon. [See article](#)

Nicolas Sarkozy presented the results of **France's defence review**. Troop numbers will be cut and some bases shut, but a new one is to open in Abu Dhabi. He confirmed plans for France to rejoin NATO's military command structure next year. [See article](#)



**Italy's** prime minister, Silvio Berlusconi, endorsed plans to suspend certain long-running trials, including by coincidence a corruption trial against him in Milan. Mr Berlusconi also said he wanted a law to suspend cases against holders of top state positions. [See article](#)

**Russian investigators** charged three men over the murder of Anna Politkovskaya. Ms Politkovskaya, a journalist, was a leading critic of the Kremlin, especially over the war in Chechnya. She was shot dead in Moscow in October 2006.

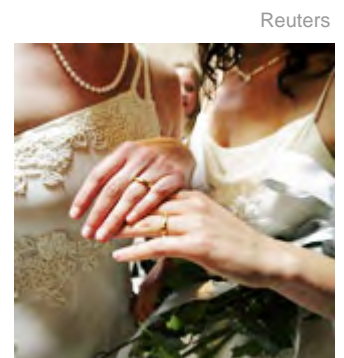
In **Turkey** Bulent Ersoy, a transsexual singer, went on trial for allegedly turning the public against military service after criticising the army's operations against Kurdish guerrillas. Meanwhile, a Turkish publisher, Ragip Zarakolu, was jailed for insulting the Turkish nation by publishing a book on the mass killings of Armenians in 1915.

## Kept at Bay

John McCain and Barack Obama sparred over security issues after the Supreme Court decided to allow the remaining prisoners at **Guantánamo Bay** to challenge their detention in civilian courts. Mr Obama argued that the justice system could cope with suspected terrorists. Mr McCain's campaign accused Mr Obama of likening terrorists to regular criminals and said he had "a September 10th mindset". [See article](#)

George Bush asked Congress to end a ban on **drilling for oil** off America's coastline on the ground that it would help ease high fuel prices. Mr McCain supported the move (he once opposed it), though Mr Obama said a plan to "simply drill our way" out of an energy crisis would not work. Environmental groups began marshalling their forces.

The first legal **gay marriages** were performed in California after a court ruling last month. Among the couples rushing to say "I do" were two San Francisco women in their 80s who have lived together for more than 50 years, and the actor who played Mr Sulu in "Star Trek".







## Business this week

Jun 19th 2008

From The Economist print edition

**American International Group** became the latest big financial outfit to ditch its chief executive. Martin Sullivan had been in the job for three years, as the insurer became mired in regulatory probes and racked up some \$30 billion in mortgage-related writedowns, by far the largest amount for an American financial company, excluding the banks. Mr Sullivan's replacement is Bob Willumstad, AIG's chairman (a position he retains), and a former high-flyer at Citigroup. [See article](#)

There was praise for **Goldman Sachs's** plan to buy the assets of a \$7 billion **structured investment vehicle** that collapsed last August. The SIV had been managed by Cheyne Capital, a hedge fund based in London; investors viewed the restructuring of its portfolio and sale to Goldman as a sign that the credit crisis may be bottoming out. Meanwhile, the investment bank continued to fare better than its rivals, reporting that net profit for the second quarter had fallen by just 11% compared with a year earlier. [See article](#)

The Bank of England announced that **Sir John Gieve** would step down early from his job as deputy governor, in which he is responsible for financial stability. Sir John came under pressure from some City bankers and opposition politicians during the Northern Rock fiasco.

## Family fortunes

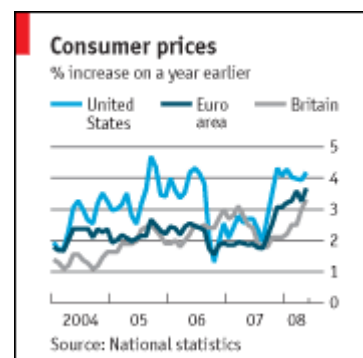
The proposal by India's **Reliance Communications** to combine with South Africa's **MTN** suffered a setback, with the eruption of a simmering feud between Anil and Mukesh Ambani, two of India's richest men. The brothers fell out after their father's death, eventually splitting his Reliance group of companies. Anil heads Reliance Communications and crafted the terms of a deal with MTN, which includes swapping a majority stake in his company. But Mukesh is claiming first refusal in any transfer of his brother's interest.

The congressional agency that investigates government spending in America criticised the air force's procedures for awarding a controversial \$40 billion contract for new flying tankers. The contract was eventually given to the KC-30, a joint effort from **Northrop Grumman** and Europe's **EADS**, upsetting **Boeing**, which had been tipped to win the deal. The issue is likely to become politicised. John McCain supports the air force's decision as commercially sound; Barack Obama thinks the contracting process should be reopened. [See article](#)

## An old enemy

With **inflation** picking up sharply in the euro area and Britain, and resuming its ascent in America, policymakers debated what to do about rising prices. A meeting of G8 finance ministers acknowledged the threat to growth from soaring energy and food prices, but did not offer any proposals. With housing markets also slowing down in America and Britain, all eyes now turn to the decisions central bankers in both countries will take on interest rates.

**Retail sales** in Britain jumped by 3.5% in May fed by shoppers buying clothing in a spell of unseasonably warm weather. This may indicate that consumers are more resilient than economists assume.



Food manufacturers in **Mexico** acceded to government requests to freeze prices on more than 150 staple products until the end of the year in an effort to curb inflation.

The **price of corn** touched record highs after flooding in America's Midwest. Wheat prices also climbed, amid speculation that farmers would now have to replace lost corn by buying more wheat for animal feed.

After reporting its first quarterly loss in 11 years, **FedEx** gave a gloomy outlook for its business for the rest of year. The high oil price and a cooling American economy will affect the high end of its shipping business.

**InBev** tried to press its \$46 billion offer for **Anheuser-Busch** by urging it to start negotiations. The Belgian brewer also responded to speculation that Anheuser was engineering a merger with a Mexican counterpart, by giving warning that its unsolicited bid was for the present business. Meanwhile, politicians from Missouri, Anheuser's home state, came out against the deal, with one Democratic senator calling opposition to InBev's offer "patriotic". [See article](#)

## The same old tune

Global **music sales** took another tumble last year according to the IFPI, which represents the recording industry. A 34% increase in music sold online did little to compensate for the 13% drop in sales of CDs and music DVDs, which account for the bulk of the market. A report from PricewaterhouseCoopers forecast that spending on all forms of recorded music will continue to decline as youngsters turn to other outlets.



## KAL's cartoon

Jun 19th 2008

From The Economist print edition

Illustration by Kevin Kallaugher



## Energy

## The future of energy

Jun 19th 2008

From The Economist print edition

**A fundamental change is coming sooner than you might think**



SINCE the industrial revolution 200 years ago, mankind has depended on fossil fuel. The notion that this might change is hard to contemplate. Greens may hector. Consciences may nag. The central heating's thermostat may turn down a notch or two. A less thirsty car may sit in the drive. But actually stop using the stuff? Impossible to imagine: surely there isn't a serious alternative?

Such a failure of imagination has been at the heart of the debate about climate change. The green message—use less energy—is not going to solve the problem unless economic growth stops at the same time. If it does not (and it won't), any efficiency saving will soon be eaten up by higher consumption per head. Even the hair-shirt option, then, will bring only short-term relief. And when a dire prophecy from environmentalism's jeremiad looks as if it is coming true, as the price of petroleum rises through the roof and the idea that oil might run out is no longer whispered in corners but openly discussed, there is a temptation to believe that the end of the world is, indeed, nigh.

Not everyone, however, is so pessimistic. For, in the imaginations of a coterie of physicists, biologists and engineers, an alternative world is taking shape. As the [special report](#) in this issue describes, plans for the end of the fossil-fuel economy are now being laid and they do not involve much self-flagellation. Instead of bullying and scaring people, the prophets of energy technology are attempting to seduce them. They promise a world where, at one level, things will have changed beyond recognition, but at another will have stayed comfortably the same, and may even have got better.

### This time it's serious

Alternative energy sounds like a cop-out. Windmills and solar cells hardly seem like ways of producing enough electricity to power a busy, self-interested world, as furnaces and steam-turbines now do. Battery-powered cars, meanwhile, are slightly comic: more like milk-floats than Maseratis. But the proponents of the new alternatives are serious. Though many are interested in environmental benefits, their main motive is money. They are investing their cash in ideas that they think will make them large amounts more. And for the alternatives to do that, they need to be both as cheap as (or cheaper than) and as easy to use as (or easier than) what they are replacing.

For oil replacements, cheap suddenly looks less of a problem. The biofuels or batteries that will power cars in the alternative future should beat petrol at today's prices. Of course, today's prices are not tomorrow's. The price of oil may fall; but so will the price of biofuels, as innovation improves crops, manufacturing processes and fuels.

Electrical energy, meanwhile, will remain cheaper than petrol energy in almost any foreseeable future, and tomorrow's electric cars will be as easy to fill with juice from a socket as today's are with petrol from a pump. Unlike cars powered by hydrogen fuel cells, of the sort launched by Honda this week, battery cars do not need new pipes to deliver their energy. The existing grid, tweaked and smartened to make better use of its power stations, should be infrastructure enough. What matters is the nature of those power stations.

## The price is right

They, too, are more and more likely to be alternative. Wind power is taking on natural gas, which has risen in price in sympathy with oil. Wind is closing in on the price of coal, as well. Solar energy is a few years behind, but the most modern systems already promise wind-like prices. Indeed, both industries are so successful that manufacturers cannot keep up, and supply bottlenecks are forcing prices higher than they otherwise would be. It would help if coal—the cheapest fuel for making electricity—were taxed to pay for the climate-changing effects of the carbon dioxide produced when it burns, but even without such a tax, some ambitious entrepreneurs are already talking of alternatives that are cheaper than coal.

Older, more cynical hands may find this disturbingly familiar. The last time such alternatives were widely discussed was during the early 1970s. Then, too, a spike in the price of oil coincided with a fear that natural limits to supply were close. The newspapers were full of articles on solar power, fusion and converting the economy to run on fuel cells and hydrogen.

Of course, there was no geological shortage of oil, just a politically manipulated one. Nor is there a geological shortage this time round. But that does not matter, for there are two differences between then and now. The first is that this price rise is driven by demand. More energy is needed all round. That gives alternatives a real opening. The second is that 35 years have winnowed the technological wheat from the chaff. Few believe in fusion now, though uranium-powered fission reactors may be coming back into fashion. And, despite Honda's launch, the idea of a hydrogen economy is also fading fast. Thirty-five years of improvements have, however, made wind, solar power and high-tech batteries attractive.

As these alternatives start to roll out in earnest, their rise, optimists hope, will become inexorable. Economies of scale will develop and armies of engineers will tweak them to make them better and cheaper still. Some, indeed, think alternative energy will be the basis of a boom bigger than information technology.

Whether that boom will happen quickly enough to stop the concentration of carbon dioxide in the atmosphere reaching dangerous levels is moot. But without alternative energy sources such a rise is certain. The best thing that rich-world governments can do is to encourage the alternatives by taxing carbon (even knowing that places like China and India will not) and removing subsidies that favour fossil fuels. Competition should do the rest—for the fledgling firms of the alternative-energy industry are in competition with each other as much as they are with the incumbent fossil-fuel companies. Let a hundred flowers bloom. When they have, China, too, may find some it likes the look of. Therein lies the best hope for the energy business, and the planet.

## The future of the European Union

### Just bury it

Jun 19th 2008

From The Economist print edition

**It is time to accept that the Lisbon treaty is dead. The European Union can get along well enough without it**



VOTERS have once again shot an arrow into the heart of a European Union treaty. This time it was the Irish, who voted no to the Lisbon treaty on June 12th by 53-47%, on a high turnout. They follow the French and Dutch, who rejected Lisbon's predecessor, the EU constitution, in 2005. In 2001 the Irish also turned down the Nice treaty, but the Danes started this game when they voted against the Maastricht treaty in 1992.

Europe's political leaders react to these unwelcome expressions of popular will in three depressingly familiar stages. First they declare portentously that the European club is in deep "crisis" and unable to function. Next, even though treaties have to be ratified by all members to take effect, they put the onus of finding a solution on the country that has said no. Last, they start to hint that the voters in question should think again, and threaten that a second rejection may force the recalcitrant country to leave the EU. The sole exception to this three-stage process was the Franco-Dutch no in 2005. Then, after two years of debate the politicians hit on the cynical wheeze of writing the constitution's main elements into the incomprehensible Lisbon treaty, with the deliberate aim of avoiding the need to consult Europe's voters directly again.

Now the Irish, the only people in the EU to be offered a referendum on Lisbon, have shot down even this wheeze. And as EU leaders gathered for a Brussels summit, after *The Economist* went to press, most had duly embarked on their usual three-stage reaction, all the while promising to "respect" the outcome of the Irish referendum—by which they mean to look for a way round it (see [article](#)). Some have had the gall to argue, with a straight face, that Lisbon must be brought into effect despite the Irish no because it will make the EU more democratic. This is Brussels's equivalent of a doctor saying that the operation was a success, but the patient died. In truth, it is the Lisbon treaty that should be allowed to die.

### Democracy and efficiency don't always go together

Every part of EU leaders' three-stage response is wrong-headed. The Irish rejection of the treaty is a setback, certainly. But in the days after the vote, the Brussels machinery has acted normally, approving mergers, looking into state-aid cases, holding meetings and passing directives. The claim that an expanded EU of 27 countries cannot function without Lisbon is simply not true. Indeed, several academic studies have found that the enlarged EU has worked more efficiently than before. Besides, it is not always desirable to speed up decision-making: democracy usually operates by slowing it down. And many of the institutional reforms in the Lisbon treaty would not have taken effect until 2014 or 2017 in

any case.

Nor is it right to treat the outcome as a problem for Ireland alone, still less to start talking of making the Irish vote again. As it happens, a case can be made that EU treaties are too complex to be readily susceptible to a simple yes/no vote. But 11 EU governments grandly promised such referendums on the constitution, and ten of them have been dishonest in pretending that Lisbon is a wholly different document. The Irish constitution requires a vote on any treaty that transfers any power at all to the European level. Even if one believes that referendums are not always desirable, it is both stupefyingly arrogant and anti-democratic to refuse to take no for an answer. Just what kind of democracy is being practised by the EU when the only outcome of a vote that is ever acceptable to Brussels is a yes (see [article](#))?

## **A mess of pottage**

It is not as if the Lisbon treaty is such a wonderful text. Besides being incomprehensible, it was—as so many EU treaties are—a messy compromise. And, like the constitution, it failed to meet the objectives laid down by an EU summit in Laeken almost seven years ago. The broad aims then were to clarify the EU's distribution of powers, with an eye to handing more of them back to national parliaments; and to simplify the rules so as to make the EU more transparent and bring it closer to its citizens. Nobody could pretend that Lisbon fulfils these goals.

This is not to say that everything in the treaty is bad. It would have improved the institutional machinery in Brussels, sorted out a muddle in foreign-policy making and brought in a fairer system of voting by EU members. But these are not the sorts of changes to set voters alight. And in truth, few EU governments or institutions are genuine enthusiasts for the treaty as such (Germany, which would gain voting weight, and the European Parliament, which would win extra powers, are two exceptions). Most simply wanted to get it out of the way and move on to issues more interesting than the institutional navel-gazing that has preoccupied the EU for too long.

After the Irish no, that is precisely what they should now do. The treaty should be buried so that the EU can focus on more urgent matters, such as energy, climate change, immigration, dealing with Russia and the EU's own expansion. It is disingenuous to claim, as some do, that without Lisbon no further enlargement is possible. Each applicant needs an accession treaty that can include the institutional changes, such as new voting weights or extra parliamentary seats.

Needless to say, many of Europe's leaders will instead look for ingenious ways to ignore or reverse the Irish decision. But to come up with a few declarations or protocols and ask the Irish to vote again would not just be contemptuous of democracy: the turnout and margin of defeat also suggest that it might fail. Nor can Ireland, legally or morally, be excluded from the EU. Attempts by diehards to forge a core group of countries that builds a United States of Europe would also founder because, outside Belgium and Luxembourg, there is no longer a serious appetite for a federal Europe.

Ireland is a small country, to be sure. But the EU is an inter-governmental organisation that needs a consensus to proceed. It is bogus to claim that 1m voters are thwarting the will of 495m Europeans by blocking this treaty. Referendums would have been lost in many other countries had their people been given a say. Voters have thrice said no to this mess of pottage. It is time their verdict was respected.

## Zimbabwe

**Africans, please help**

Jun 19th 2008

From The Economist print edition

**Zimbabwe needs its neighbours to help rescue its people from hell**

AP



SINCE Robert Mugabe lost the first round of a presidential election at the end of March to Morgan Tsvangirai, he has stopped at nothing to steal the second round on June 27th (see [article](#)). Several million famished Zimbabweans depend on foreign aid to keep them alive, yet he has banned most foreign agencies from operating around the country, partly to prevent them witnessing the horrors he is inflicting on those he suspects of disloyalty, and partly to use food to coerce people into voting for him. His police have repeatedly detained Mr Tsvangirai as he tries to campaign, and have kept Mr Tsvangirai's number two locked up, saying they will charge him with treason, a capital offence. At least 65 people from Mr Tsvangirai's party are said to have been murdered since the poll in March.

Last time, Mr Tsvangirai was officially acknowledged as the winner against all the odds because votes were counted on the spot and results put up at each of the 9,000-plus polling stations, making it trickier to fiddle the tally at the election headquarters in the capital, though Mr Mugabe's team probably massaged the figures enough to require a run-off. This time it will be harder for the opposition—for fear of being beaten up or even killed—to field enough of their own agents at the polling stations and more difficult for local independent monitors to watch the process. So the chances of rigging on an even grosser scale have sharply increased. In short, Mr Mugabe seems set to pull off a phoney victory this time round.

So is there any point in Mr Tsvangirai battling on, letting Mr Mugabe wrap his brutal election charade in a cloak of legality? Plainly Mr Tsvangirai would be justified in calling for a boycott. But as long as he sees a flicker of a chance that he may prevail again at the polls, he seems determined to carry on. Moreover,

much still depends on the efforts of Zimbabwe's neighbours, especially the Southern African Development Community (SADC), a club of 14 countries (including Zimbabwe), to press for the barest modicum of fairness in the poll. Last time, SADC's efforts to monitor it were shamefully feeble. This time it is sending more people, but no one has much faith in it. South Africa's president, Thabo Mbeki, whom SADC has empowered to lead the mediation, has been a disgrace. He has blocked efforts to badger Mr Mugabe into ensuring a fair second poll, let alone admitting defeat and handing over power.

## **Africa must not be mugged again**

The one glimmer of hope is that several of SADC's leaders, including those of Zambia, Tanzania and Botswana, are losing patience with Mr Mugabe. Unhappiness elsewhere in Africa is growing. So is a sense that, even if he wangles a win, Zimbabwe can be sorted out only by a government of national unity.

In a normal democratic country, Mr Tsvangirai would already be president, Mr Mugabe and his villains would have bowed out and the rich world would be dispensing its largesse. In the present dire circumstances, a messier transition may be inevitable, even if Mr Mugabe steals this election, as seems likely, or even if Mr Tsvangirai were allowed to win.

In the coming months, some kind of unity government may emerge. If so, SADC's leaders and other influential Africans should make it clear that the recent Kenyan model is not acceptable: in that case, an incumbent president lost at the polls but has stayed in office by fiddling the count and then letting the real winner hold a raft of inferior ministries. It may be too much to hope that SADC will impose sanctions on Mr Mugabe and his gang if they refuse to budge. But at the very least, even in an eventual negotiated settlement, they should make it clear that it is time for Mr Mugabe to go. He has become a disaster for his own country and an embarrassment to Africa.



## North America

## The dangers of Mexico-bashing

Jun 19th 2008

From The Economist print edition

**America's politicians damage their own country by insulting its southern neighbour**

Illustration by Satoshi Kambayashi



A CENTURY ago Porfirio Díaz, a Mexican dictator, lamented the fact that his country was “so far from God and so close to the United States”. The difference today is that Mexico has swallowed its doubts and bound itself to the Great Satan through the North American Free-Trade Agreement (NAFTA). And having become a democracy, too, Mexico's close partnership with the United States is nowadays based on common values as well as common interests.

Or so it thought. Over the past couple of years Mexicans have had to watch as their country has been the victim of some decidedly unfriendly treatment from its neighbour. This began when the American Congress, largely at Republican urging, squashed attempts to regulate migration, opting instead to build a fence along stretches of the Mexican border.

Next, the candidates in the Democratic primary tried to outdo each other in their hostility to NAFTA. Barack Obama, like Hillary Clinton, called for the treaty to be scrapped, or rewritten to include more labour and environmental safeguards. What was odd about this was that the source of their anxieties—an alleged hollowing-out of American manufacturing—has much more to do with competition from China than from Mexico.

To add insult to possible injury, there is a wrangle over anti-drug aid. On taking office as Mexico's president in 2006, Felipe Calderón cracked down on powerful, well-armed drug mafias. These had thrived, largely unmolested, for decades, infecting the police and politics. Mexico lacks a national police force. So while he tries to create one Mr Calderón has deployed the army. So far this year some 1,600 people have been killed in drug violence, including 450 police and soldiers.

Since this is a fight Mexico's democracy cannot afford to lose, Mr Calderón has taken a historic step for his proud country and turned to the United States for help. The Bush administration offered \$1.4 billion over three years, much of it for helicopters, communications gear and training. This is hardly extortionate, given that America's consumers of illicit drugs are the main source of Mexico's drug problem, that American gunshops along the border supply the mafias with weapons and that many of the chemicals for Mexican methamphetamine production pass freely through Californian ports.

And yet the Democrats in control of Capitol Hill could not resist the temptation to tie the assistance to conditions that Mexicans are entitled to consider humiliating. One such was to make the first \$400m tranche of aid contingent on Mexico promising that any troops accused of abuses should face civilian trials. However desirable such a policy may be, seeking to impose it in this way was to treat Mexico as if

it were Myanmar. Fortunately a compromise is now in sight (see [article](#)) that may satisfy pride on both sides.

## **Try some simple courtesy, for a change**

Even so, there is a lesson here, for Mr Obama and the Democrats in particular. (To his credit, John McCain championed the failed immigration reform and is a fervent advocate of NAFTA.) Mexico has obvious flaws. Its monopolistic economy has failed to create enough jobs to keep its young people at home. Its police and judiciary are sometimes venal and often incompetent. It will never be as influential as China, a country America knows it must placate as well as chide.

But it behoves Americans to show it more respect. Mr Calderón is trying to do many things that are in America's interest as well as Mexico's, from reining in drug gangs to allowing private investment in a declining state-owned oil industry. Mexico's stance towards its neighbour was long prickly and unco-operative. It could turn that way again. In an election year, Mexico-bashing may seem tempting. But it is short-sighted as well as unstatesmanlike. And since most Hispanic-Americans have Mexican roots, it might even cost votes.

## The curse of untidiness

### DNA all over the place

Jun 19th 2008

From The Economist print edition

#### Clutter is not just an evolutionary adaptation, but also a business opportunity

Getty Images



AN OBJECT is worth more to you if you already own it. Researchers found that some Cornell students who would choose a chocolate bar over a coffee mug start to prefer the mug once they have been given one. This “endowment effect” has been spotted with all sorts of things, from basketball tickets to shares and petrol vouchers. The question that has puzzled economists is just why a supposedly clever species like *Homo sapiens* should fall prey to something so irrational.

Now scientists may have provided an answer. The endowment effect has been seen in brain-imaging studies in people and in chimps (see [article](#)), which suggests it is an evolutionary adaptation. Trade was risky when there were no contracts, law or language. The bird in the hand was worth even more when bushes were dangerous.

Are humans, then, hardwired to cling on to their possessions? If so, this primordial instinct joins a lengthening list of maladaptations to modern life. Attention-deficit hyperactivity disorder (ADHD) may have suited a nomad, because the itch to wander off led to serendipitous discoveries of food and mates. The ability to store food as fat was handy if food was sometimes scarce. Such adaptations may have done the human race nicely when it was chasing wildebeest in the savannah, but they are worse than useless in the Googleplex. The fat, the impulsive and the untidy are genetically normal, but they are equipped for yesteryear. The thin, the focused and the neat are freaks—but they are cut out for success.

For modern life disapproves of clutter, almost as much as it scorns obesity and fidgeting. Cubicle life and hot-desking make no allowance for employees who own anything. Architects and designers, like Le Corbusier and Walter Gropius, long ago tried to eliminate clutter from the home, and, along with the arbiters of taste, the high cost of housing argues against clutter. If you want to keep up with fashion, in handbags and iPhones, it is constantly in with the new. Modern life demands that the old should go out at the same time.

### A neat solution

Yet where nature creates a problem, the market provides a solution. What Ritalin is to ADHD, and liposuction is to obesity, the personal-organisation industry can be to clutter. These professionals offer

not just order, but also sympathy. America's National Association for Professional Organisers speaks of "Chronic Disorganisation"; hoarders everywhere will take comfort from those capital letters. You can imagine the advice that follows: "Go home, take this remote-control caddy, watch an entire series of 'House Doctor', and you should feel better in the morning."

The clutter industry feeds the addiction. Self-storage has been the fastest-growing part of America's commercial-property business in the past 30 years. There are now almost seven square feet of self-storage for every American. Paying more to store something than it is worth may seem doubly irrational. But it enables people to reconcile caveman clutter with modern minimalism, and allows companies to benefit from a huge business opportunity that includes inflatable salad bars, over-door baseball cap organisers and motion-activated paper-towel dispensers. Since the urge to accumulate stuff is limitless, so is the scope for selling people stuff to keep it in.

## On the Democrats, Norman Stone, South Africa, Afghanistan, the Federal Reserve, oil, corporal punishment, Hong Kong, suburbs

Jun 19th 2008

From The Economist print edition

### The triumph of the New Left

SIR – Your explanation of Hillary Clinton's failure to win the Democratic nomination was good on the tactical errors she made, but you did not acknowledge the larger issue of identity politics in the Democratic Party ("[The fall of the House of Clinton](#)", June 7th). Having staked so much of her appeal implicitly (sometimes explicitly) on her gender, she was not well equipped to confront a candidate with a more compelling appeal to the sensibilities of the kinds of Democrats who finance campaigns, volunteer in primaries, and establish the narrative of Democratic Party politics.

Considering its history, today's Democratic Party remains absolutely obsessed with racial categories in politics. The progressive, modernist middle-class has replaced the economic radicalism of earlier left-wing thought with a sort of ethno-racial determinism. Barack Obama has become the candidate of "history" and "the future". The Obama phenomenon raises the question of what will happen when the Hispanic constituency, whose ethnic identity has also been carefully cultivated by the Democratic Party, decides it is no longer satisfied with black men or white women professing to speak for its distinct interests and runs "one of its own" in 2012 or 2016. (Does anyone doubt this is coming?)

The entitlement disputes will be entertaining, if ultimately dispiriting. The Balkanisation of America has long been predicted by pessimistic conservatives, but they can take cold comfort in the probability that it will strike first in the Democratic Party. That's the real lesson of this year's election.

Mark Richard  
Columbus, Ohio

SIR – The Obama-Clinton contest was hard fought and ended well, because it has given birth to a new sensation: globamatisation. This refers to the notion that in a developed and deepened democracy, like the United States, the lines between politics, culture, colour, creed and history are happily collapsing.

Globamatisation is the beginning of a new dawn whereby techno-democratic forces will drive silent revolutions across the globe.

Tunde Oseni  
Oxford

SIR – I am one of the many Republicans who quit the party during George Bush's presidency because of his uncontrolled domestic spending, imperialist tendencies and complete disregard for the constitution and international law that we've pledged to uphold. I now have the option of voting for Mr Obama, an ultra-protectionist and the number one liberal in the Senate, or John McCain, an überhawk on foreign policy. There is of course the incompetent Libertarian Party, led by Bob Barr. Such is the choice faced by socially liberal and economically conservative Americans.

James Martinelli  
London

SIR – Immediately after securing enough delegates to become the Democratic candidate for president, Mr Obama chose to make an emphatic public commitment. But not on health care, or climate change, and not on the economy, taxes, or the price of petrol. It was not even on the Iraq war. No, Senator Obama's first big policy speech after securing the nomination was to the American Israel Public Affairs Committee, demonstrating the enduring power of that lobby. I suppose some things do not "change".

Michael Halpern

Westbourne, Dorset

SIR – I read Susan Sarandon’s comment that she would move to Italy or Canada if Mr McCain were elected president (“[Primary colour](#)”, June 7th). As both countries have conservative governments, and considering Ms Sarandon’s political views, I thought that Venezuela or Cuba would be more suitable destinations.

Ricardo Abusail  
Hong Kong

## **A response to Norman Stone**

SIR – Norman Stone is known for both his enthusiastic embrace of Turkey’s nationalist establishment and his emphatic defence of Turkish policies towards the Kurds and Armenians. It is therefore not surprising that he would take the opportunity to attack what he perceives as enemies of Turkey ([Letters](#), June 7th). This time, however, he stretches the point. It is not the Armenian diaspora that is hampering the future of Turkish-Armenian relations. Rather, it is the sad fact that historians are being harassed by illiberal prosecutors, denied entry to Turkish archives and targeted by zealous nationalist activists.

Together with authors of fiction, who are investigated and tried for statements made by their dramatis personae, they would beg to disagree with Mr Stone’s assertion that the events of 1915 “should now be left to historians”. Someone who cannot respond to Mr Stone is the Turkish-Armenian journalist Hrant Dink. He was killed last year for his views on the tragedy of 1915 and his effort to overcome the wall of hatred separating Armenians and Turks.

Kerem Oktem  
Oxford

SIR – I suspect that you would never have published a letter belittling actual historic events if the writer were questioning the Holocaust. And yet you didn’t hesitate to run such a letter when it came to the Armenian genocide, an historical fact validated by all credible sources.

The Armenian diaspora didn’t magically appear after 1915. The causes were very simple; forced marches in the Syrian deserts, the looting of an historical homeland, and rape and murder. Forgive us, Mr Stone, for not being able to let such a tragic event go without expecting proper reparations for the planned murder of 1.5m Armenians who lived peacefully in the Caucasus for centuries.

Shiraz Vartanian  
Los Angeles

## **Tragic events in South Africa**

SIR – Your report on the xenophobic violence in South Africa suggested that “the authorities appear at a loss to explain the mayhem” (“[Give them a better life](#)”, May 24th). Denial is a familiar response from South Africa’s government, which has yet to create an environment conducive to the kind of economic growth that can address the population’s aspirations as well as the reality of migration. The government simply mismanaged the humanitarian crisis that followed the unrest.

I visited a refugee camp in my constituency that was home to 350 relocated refugees. There was no water (“the tanker ran dry”) or food (“the caterer let us down”) and no medical facility (“we need a mobile clinic”). A fence had not yet been put in place (“it hasn’t been erected yet”) and there was insufficient security (“we’ll call for back-up if attacked”). There was no shower (“we have a few buckets”). And there was no provision for cooking (“there is no equipment”). A bad situation was made worse by government incompetence.

Dion George, MP  
Democratic Alliance  
Midrand, South Africa

## Military history

SIR – It should come as little surprise that American forces have adapted to the cultural landscape in Afghanistan quicker than have their British counterparts (“A war of money as well as bullets”, May 24th). The British may have pioneered the Great Game, but their political and cultural intelligence about much of north-western India was limited from the onset.

After the 1820s, the British, in a fit of victorious hubris (emboldened by their defeats of Napoleonic France, no less), increasingly cut themselves off from the cultural, linguistic and religious knowledge of the wider Indo-Persian realm. One East India Company official’s wistful remark that “beyond the Jumna [river] all is conjecture” could apply as equally today as it did more than 100 years ago.

Hayden Bellenoit  
Department of History  
United States Naval Academy  
Annapolis, Maryland

## Checks and bank balances

SIR – You criticised the Democrat-controlled Senate for stalling its confirmation of George Bush’s new appointees to the Federal Reserve (“Playing politics with the Fed”, June 7th). If the central bank is being politicised, it only has itself to blame. An economy awash with cheap money and deals that bail out banks have political consequences. The Fed has provided a distorted incentive to bankers who now know that if the mistakes they make are big enough they could be eventually rescued with public funds.

In a robust democracy it is only natural that elected officials will take an interest in the behaviour of institutions such as the Fed. Anyone doubting this should look at the history of appointments to the judiciary. These became politically heated only after judges started using their powers to try to right all manner of social ills rather than simply answering the legal question before them. Personally, I find it reassuring that these people are being held to account.

Caspar Conde  
Sydney

## Paying at the pump

SIR – I am surprised at how little of the debate surrounding high oil prices is concerned with finding ways to reduce petrol costs through improvements in fuel efficiency (“Double, double, oil and trouble”, May 31st). For example, in transport logistics only about 10-15% of each litre of fuel is actually used to propel a typical lorry and its cargo.

For some fleets as much as 15% of annual road miles are spent moving empty cargo loads. Simple alterations to operational procedures by optimising cargo loads, aiding drivers in planning journeys and choosing optimal (and more fuel-efficient) routes, could produce real savings on the cost of fuel. It is in the best interests of hauliers to improve their fuel efficiency.

Justin Keeble  
Cambridge, Cambridgeshire

SIR – You dismissed the notion of peak oil as a factor in high oil prices stating that “there is little evidence to support the doctrine of ‘peak oil’ in its extreme form. The Middle East still seems to contain a sea of the stuff” (“Recoil”, May 31st). As far as I understand it, there is no “extreme form” of this rather simple theory.

Since there is a finite amount of oil on the planet, the rate of discovery and extraction will eventually hit a peak and decline as more of the stuff is used up, causing its price to rise. At some point in the future the Middle East will follow Texas, Norway, and the North Sea into diminishing returns at higher cost; it’s a question of when, not if.

Joe Grondahl



Albany, California

SIR – It is not quite true that the price of the “black stuff that refiners turn into petrol” is independent of the prices of “paper barrels”. The pricing terms in many contracts for physical crude oil, and other commodities for that matter, are directly linked to “paper prices”, for the simple reason that the paper market is larger, more transparent and far better documented than the physical market.

N. Bala Ganesan  
Chennai, India

## **Schools’ rules**

SIR – Regarding your article on corporal punishment (“Spare the rod, say some”, May 31st), I taught in New York state and even as early as the 1950s teachers were not allowed to touch students, much less spank them. I once collared an unruly pupil by the back of the neck and marched him to the principal’s office, yet I was the one who was disciplined, having to meet the boy’s parents and apologise. In another incident I grabbed our school’s quarterback by the shirt front, with the same result.

These are the only two occasions in 28 years of teaching when I felt I needed to physically restrain students, and both times I was chastised by administrators. So contrary to the tone of your article, I think that most school systems in the United States have very strong rules against any form of corporal punishment.

Jack Shafer  
Dansville, New York

## **Hong Kong’s government**

SIR – Chinese nationalism in Hong Kong is real and on the rise. However, your article about the appointment of an under-secretary of commerce that created a political furore because he held a foreign passport missed the mark (“Thou shalt have no other”, June 7th). Much of the public outcry was not over foreign passports but the secretive process by which these under-secretaries are appointed (and the outrageously high salaries they are paid). Hong Kong’s citizens were kept in the dark until the press release of the appointment, which came while people were mourning for victims of the Sichuan earthquake and was seemingly timed to avoid public attention.

Moreover, although Hong Kong’s Basic Law allows foreigners to serve as public servants at most levels, the law does not allow foreigners to serve as secretaries. Since under-secretaries will have similar access to confidential information and are expected to become secretaries in the future, it is hard to accept that they should meet different legal requirements regarding nationality.

Francis Wong  
Richmond, Virginia

## **The good life**

SIR – Your briefing on America’s suburbs mentioned many salient elements: demography, race, economics, sexual orientation, jobs, commuting, land, environmental impact, traffic, shopping, crime and government (“An age of transformation”, May 31st). But it entirely omitted education, which is crucial. For various not altogether admirable reasons (local school budgets are often based on property taxes), suburban schools are, in general, superior to urban and rural public schools. Many concerned parents move to the suburbs and even to specific suburbs based on the school system.

Since these parents really care about education, the suburbs to which they migrate increasingly obtain a constituency that continues to demand excellence in schools, and so the schools often get even better. Good education and a good chance at getting into a decent college are powerful reasons for the vitality and growth of American suburbs over the past six decades.

James Engell  
Chair  
Department of English  
Harvard University  
Cambridge, Massachusetts

SIR – I worked for many years in Valencia, California, and was surprised by your description of it as “vaguely Mediterranean”. You could only be referring to the shopping mall. It is hard to miss the mall as all the exits for the town from the freeway will lead you straight to it. So much for an “urban core”. Valencia is not close to my idea of a Mediterranean village, not even vaguely.

It is full of endless chain restaurants and no places to linger. Its roads are laid out in loops and curves making each neighbourhood a five-mile trek to the other. Yes, there are benches filled with bored teenagers, but a place to enjoy an aperitif? Or even a place to dance? Not in Valencia.

Julian Macassey  
Santa Barbara, California

## Europe's Roma

**Bottom of the heap**

Jun 19th 2008 | BRUSSELS AND BUCHAREST  
From The Economist print edition

AFP

**The dismal lives and unhappy prospects of Europe's biggest stateless minority**

THE village of Vizuresti lies 35km (22 miles) from Bucharest and on the wrong side of the tracks. For the first few miles the road from the highway is paved, passing through a prosperous district with solid houses and well-tended fields. But once it crosses the railway, leading only to the Roma settlement, the tarmac stops. The way to Vizuresti is 20 minutes of deep potholes and ruts. Life for its 2,500 people, four-fifths of them Roma, is just as tough.

Mihai Sanda and his family, 37 of them, live in half-a-dozen self-built, mud-floored huts. In his two-room dwelling, seven people share one bedroom; chickens cluck in the other room. The dirt and smell, the lack of mains water, electricity, sewerage and telephone are all redolent of the poorest countries in the world. So is the illiteracy. Ionela Calin, a 34-year-old member of Mr Sanda's extended family, married at 15 without ever going to school. Of her eight children, four are unschooled. Two, Leonard, aged four and Narcissa, aged two, do not even have birth certificates; Ionela believes (wrongly, in fact) that she cannot register their birth because her own identity document has expired.

For the millions of Europeans—estimates range between 4m and 12m—loosely labelled as Roma or Gypsies, that is life: corralled into settlements that put them physically and psychologically at the edge of mainstream existence, with the gap between them and modernity growing rather than shrinking. The statistics are shocking: a Unicef report released in 2005 said that 84% of Roma in Bulgaria, 88% in Romania and 91% in Hungary lived below the poverty line. Perhaps even more shocking is the lack of a more detailed picture. Official indifference and Roma reluctance mean that data on life expectancy, infant mortality, employment and literacy rates are sparse. Yet all are deplorably lower than those of mainstream society.

The immediate response to this (as for most of eastern Europe's ills) is to blame history. The lot of the Roma has been miserable for a millennium, ever since their mysterious migration from Rajasthan in northern India sometime around 1000 AD. With the possible exception of a principality in Corfu around 1360, they have never had a state. In parts of the Balkans, Roma were traded as slaves until the middle of the 19th century. Mirroring America's history at the same time, emancipation proved a necessary, but not a sufficient, condition for freedom. The Roma of Vizuresti went from being slaves to being landless peasants. Even now, seasonal agricultural labour of the most menial kind is the main source of income;

that, and begging.

But a twist of history in the next century meant that Europe's Roma suffered even more than America's blacks. Hundreds of thousands perished in the Nazi Holocaust. Compensation has been stingy, belated and badly administered.

It would be even easier to blame the Roma's plight on communism. Certainly that system largely stamped out the Roma's traditional nomadism. Countries such as Czechoslovakia also practised forced sterilisation (though Sweden did that, too). But the paternalistic structures of state socialism to some extent sheltered, if usually in the most menial jobs, those unable or unwilling to compete in a market economy. And an ostensible commitment to the brotherhood of man restrained at least some racial prejudices. For the Roma, democracy unleashed their fellow-citizens' latent hostility, while capitalism offered them few prospects.

As eastern Europe prospered, the Roma fell further behind. Their surviving traditional skills (handicrafts, horsetrading) were out of date; they lacked the administrative skills to set up businesses in the formal economy; even those wanting to work found few factories or offices willing to employ them. And European Union membership has added a new bureaucratic burden even to the businesses in which they thrive. In Balteni, near Vizuresti, the local Gypsy chieftain or *Bulibasha* (at the age of 84 himself a Holocaust survivor) runs an immense informal scrapyards, where tractor-trailers, car shells drawn by horses and rickety lorries deliver precariously loaded piles of rusty metal to be sorted and then sold to a nearby metallurgy plant. A vast bonfire of copper cables fills the air with fumes as insulating material is burnt off. A ragged, shoeless workforce of all ages sorts the inventory by hand. There is not a safety notice, a glove or a visor in sight, and it is hard to imagine the business or its illiterate owner managing to cope with any kind of bureaucratic inspection.

## Criminal suspicions

The most conspicuous problem for the Roma is lack of education, which keeps them out of jobs. Others include hostility from the majority population, apathy in officialdom, dreadful public services and infrastructure, and a pervasive feeling of hopelessness. It is hardly surprising that many tens of thousands of Roma have moved west in search of a better life. But if they did not fit in well at home, they adjust even worse to life in western Europe. Begging on the street, for example, often with young children, scandalises the citizenry, as do Roma encampments in public spaces such as parks or road junctions. A delegation of top Finnish politicians visiting Romania this month publicly complained. "In Finland, begging is not a job," the country's president, Tarja Halonen, told her hosts with Nordic hauteur. Maybe not, but for Roma it may be the only choice they have.



West Europeans also tend to believe that Roma migrants are responsible for an epidemic of

pickpocketing, shoplifting, mugging—and worse. In Italy, public patience snapped earlier this year after reports of gruesome muggings, rapes and the alleged stealing of a baby. Such reports were not matched by any change in the crime statistics. But coupled with some incendiary statements by the incoming right-of-centre government, they were enough to provoke something close to an anti-Roma pogrom in May in Naples and other cities. Rioters burned Roma caravans and huts; the authorities followed up with arrests and deportations.

West European attitudes differ little in essence from those of the ex-communist bureaucrats in the east. They want the problem to go away. Emma Bonino, a feisty Italian politician and former EU commissioner, says that Roma make a “perfect scapegoat” for politicians who have failed to deal with Italy's other, graver problems. The authorities' response has been milder than their rhetoric suggests, she says, but she laments the lack of any programme to help the Roma integrate into Italian society. The biggest danger, in her view, is that politicians have made anti-Roma racism respectable for the first time: “When you go down that road, you will not stop it just by saying ‘Enough is enough’.”

That is not just a moral cop-out. It is also bad economics. Excluding an Ireland-sized group of millions of people from the labour market, particularly when they typically have much larger families than the average in fast-greying Europe, is a colossal waste of human potential. But those looking for encouraging signs have to hunt hard indeed.

Europe is supposedly in the middle of a “Decade of Roma Inclusion”, launched in 2005 when the governments of the countries with big Roma populations (Bulgaria, Croatia, the Czech Republic, Hungary, Macedonia, Montenegro, Romania, Serbia and Slovakia) agreed to close the gap in education, employment, health and housing. Fully €11 billion (\$17 billion) is available from the EU's social fund, with a further €23 billion earmarked from the regional development fund in coming years.

Yet the main effect so far has been to create a well-paid elite of Roma lobbying outfits, fluent in bureaucratic jargon, adept at organising seminars and conferences and nobbling decision-makers. It has had little effect on the lives of the Roma themselves. As the Open Society Institute, funded by George Soros, a billionaire philanthropist, says in a recent report, most governments see the answer to the Roma problem in terms of “sporadic measures” rather than coherent policies. An official in Brussels says: “We don't lack the laws and we don't lack the money. The problem is political will.”

## Unwillingly to school

Certainly a bit of willpower can work wonders. In Vizuresti, for example, only 6% of the children never go to school at all—a triumph by local standards. But it is still nothing to cheer about. “When the girls reach nine or ten they are ready to get married, and it is shameful for them to come to school,” explains a local, firmly adding that “marriage” in this sense means betrothal, not conjugality. “The boys don't come if they are busy helping their fathers to collect scrap,” he continues, “and the boys drop out at 15 because then they have completed the eighth grade, which you need to get a driving licence.”

In much of eastern Europe Roma children are packed off to special schools for “backward” children, reinforcing stigma and prejudice and guaranteeing that they enter the labour market with a third-class ticket. Another obstacle is the lack of birth certificates: schools that do not want Roma children can simply refuse to register those without official papers. But perhaps the biggest barriers are parental reluctance and poverty. Children in school can't work. They need expensive uniforms and books. It may even be embarrassing if they can read when their parents can't. So why bother?

A well-run country can try to spend large amounts of taxpayers' money on alleviating social problems. The results may be patchy, but at least in western Europe they have got somewhere. Spain, for example, is regarded as a big success story. Its Roma were marginalised and neglected under authoritarian rule; now a mixture of good policy and generous EU funding has brought widespread literacy, better housing and integration in the labour market. But the ex-communist countries have much weaker public administration, and neither politicians nor voters consider Gypsies a priority.

Vizuresti is doing better than most places. Thanks to a charismatic and impressive head teacher, Ion Nila, lack of documents is no barrier to registration at the village school. His teachers go door to door in the mornings, cajoling parents into sending their children to class. The real breakthrough, he says, will come if he can get Roma children to attend the nursery attached to the school. But, says Mr Nila, parents are reluctant to send their young children, as they don't have the money to buy them shoes. He hopes that hot midday meals will be an incentive, if he can find the money to pay for them.

So, at the top, billions of euros are being pumped in; while, at the bottom, a teacher struggles to find the tiny amount needed simply to feed his charges. Indeed, most of the progress in Vizuresti comes not from taxpayers' money, which soaks away into bureaucracy far from the village, but from the work of a charity, Ovidiu Rom, headed by a fiery American philanthropist, Leslie Hawke. The charity, not the state, has paid for and helped with IDs, teacher training, student workbooks and a special summer programme designed to prepare 20 of the poorest children and their often illiterate parents for what seems, to them, scary school life.

## **Bound only by music**

So why is Europe floundering? The conventional answer is that the Roma's biggest problem is racism pure and simple. Enforcement of tough anti-discrimination laws, Roma-friendly curriculums in schools, cultural self-esteem, positive discrimination in both officialdom and private business are the necessary ingredients for change, say the politically correct.

But that is not the whole story. Even defining what "Roma" really means is exceptionally tricky. Europe has plenty of marginalised social groups, often with traditions of nomadism and their own languages: Irish Tinkers, for example, who speak Shelta. Their problems and history may in part be similar to the Roma's, but they are not the same. Even within the broad category of Roma (meaning those with some connection to the original migrants from Rajasthan) the subdivisions are complex. Some prefer not to use the word Roma at all, arguing that "Gypsy", sometimes thought derogatory, is actually more inclusive. The impressive catalogue to the Roma Pavilion at the 2007 Venice Biennale insists that Roma is too narrow a term, excluding as it does "Sintis, Romunglo, Beas, Gitanes, Manus etc". Even ethnographers find it hard to nail down the differences and similarities between such groups.

Moreover, those more narrowly defined as Roma have surprisingly little in common. The Roma tongue—originally related to Sanskrit—has splintered into dozens of mutually incomprehensible dialects. The sprinkling of internationally active Roma activists have developed their own version (sometimes derisively known as "NGO Roma"), but it bears little relationship to the creoles still spoken in the settlements. The strongest common culture is traditional Roma music, where it survives. But its haunting chords and rhythms do not conquer tone-deaf bureaucracies.

The boundaries between the marginalised groups and "normal" society are fluid. One reason that a Roma middle class, which supposedly would provide role models, lessen prejudice and increase social and economic mobility, has failed so far to take root is that most Roma who become middle-class drop the "Roma" label at once. Hopes for a change rest on the new generation of thousands of young Roma graduates, who may be less shy about their origins.

Similarly, those not born into the Roma world can end up there—by marriage, adoption or choice. In Balteni, a blonde girl, Roxana, shyly shows off a necklace of seven big gold coins given to her as a mark of impending puberty; not born a Roma, she was adopted from an orphanage into the family of a local patriarch. A Roma—which comes from the Romani word "Rom", meaning husband—is, ultimately, anyone who wants that label.

Furthermore, as Zoltan Barany, author of a controversial but acute book on the Gypsies of eastern Europe, points out, Roma lobbyists tend not to notice that the Roma's own habits and attitudes may aggravate their plight. Speaking off the record, a westerner engaged in Roma welfare tells the story of an exceptionally talented teenage pupil at her country's top academy. She was bound for university and a stellar career, but her family decided that this was too risky: she was bride-snatched, taken to a remote village, raped and kept in seclusion. From there she was trafficked to western Europe, where she is now in a group of beggars camping out near one of Europe's best-known stadiums. Well-wishers tried to rescue her, offering a safe-house where she could continue her studies; she refused, frightened that her family would find her.

The result of that is what a senior official dealing with the issue calls "self-decapitation". A handful of Roma politicians have emerged, including a couple of impressive members of the European Parliament. But even their symbolic value is limited. The vast majority of Roma do not even vote in elections, let alone join the campaigns waged on their behalf. There is no sign of a Roma Martin Luther King, let alone a Barack Obama. But, notes the official, "There are lots of angry young men."

Amid all this, the EU is tottering forward. A report due to be issued next week will criticise the "implementation gap" in the worthy policies conceived so far. It will rebuke governments for slow

progress. Controversially, it is likely to say that formal equality before the law is only a starting point, and that American-style positive discrimination will be needed.

That may prove a risky course. As in America, race and a history of slavery make a potent combination, entrenching stereotypes and attitudes on all sides. But also as in America, it is unclear how far the problem is race, and how far it is a matter of poverty and other factors. Stop treating Roma as a racial minority, Ms Hawke argues, and concentrate on the poor level of public services they receive in housing, health and particularly education.

Seeing the problem only through an ethnic lens is great news for the "Roma industry", as the campaigning groups are sometimes derisively known. Their activities turn all too quickly into a theoretical, nit-picking discussion about politically correct language, complete with internecine feuds between different lobbies. It plays badly with voters, who already tend to blame the Roma for their own misfortunes. In most ex-communist countries, polls show striking degrees of prejudice: as many as 80% of those asked say they would not want Roma neighbours, for example. In Hungary, the commendable idea of integrating Roma and non-Roma children in the same schools has sent parents scurrying elsewhere.

But there are some shoots of hope. One is that the violence in Italy has highlighted the Roma issue in a way that would never have happened if the misery had remained concentrated in the slums and ghettos of eastern Europe. "Just as Putin has galvanised Europe on energy policy, Berlusconi has galvanised Europe on Roma policy," says Andre Wilkens, a thoughtful Brussels-based observer of the region who heads the Open Society Institute's Roma efforts. He believes that the new member states of the EU have a chance to derive advantage from the Roma by finding an economic niche for them—for example, by turning their tradition of scrap-dealing into the basis for a modern recycling industry.

Such hopeful nibbles abound. But even an optimist would have to concede that Europe's biggest social problem will persist for the lifetime of anyone reading this article, and probably far longer.



## Political segregation

## The Big Sort

Jun 19th 2008 | BETHESDA, MARYLAND, AND MCLEAN, VIRGINIA  
From The Economist print edition

**Americans are increasingly choosing to live among like-minded neighbours. This makes the culture war more bitter and politics harder**

Getty Images



SOME folks in Texas recently decided to start a new community “containing 100% Ron Paul supporters”. Mr Paul is a staunch libertarian and, until recently, a Republican presidential candidate. His most ardent fans are invited to build homesteads in “Paulville”, an empty patch of west Texas. Here, they will be free. Free not to pay “for other people’s lifestyles [they] may not agree with”. And free from the irksome society of those who do not share their love of liberty.

Cynics chuckle, and even Mr Paul sounds unenthusiastic about the Paulville project, in which he had no hand. But his followers’ desire to segregate themselves is not unusual. Americans are increasingly forming like-minded clusters. Conservatives are choosing to live near other conservatives, and liberals near liberals.

A good way to measure this is to look at the country’s changing electoral geography. In 1976 Jimmy Carter won the presidency with 50.1% of the popular vote. Though the race was close, some 26.8% of Americans were in “landslide counties” that year, where Mr Carter either won or lost by 20 percentage points or more.

The proportion of Americans who live in such landslide counties has nearly doubled since then. In the dead-heat election of 2000, it was 45.3%. When George Bush narrowly won re-election in 2004, it was a whopping 48.3%. As the playwright Arthur Miller put it that year: “How can the polls be neck and neck when I don’t know one Bush supporter?” Clustering is how.

County-level data understate the degree of ideological segregation, reckons Bill Bishop, the author of a gripping new book called “The Big Sort: Why the Clustering of Like-Minded America is Tearing Us Apart”. Counties can be big. Cook County, Illinois, (which includes Chicago), has over 5m inhabitants. Beaverhead County, Montana, covers 5,600 square miles (14,400 square kilometres). The neighbourhoods people care about are much smaller.

Americans move house often, usually for practical reasons. Before choosing a new neighbourhood, they drive around it. They notice whether it has gun shops, evangelical churches and “W” bumper stickers, or

yoga classes and organic fruit shops. Perhaps unconsciously, they are drawn to places where they expect to fit in.

Where you live is partly determined by where you can afford to live, of course. But the “Big Sort” does not seem to be driven by economic factors. Income is a poor predictor of party preference in America; cultural factors matter more. For Americans who move to a new city, the choice is often not between a posh neighbourhood and a run-down one, but between several different neighbourhoods that are economically similar but culturally distinct.

For example, someone who works in Washington, DC, but wants to live in a suburb can commute either from Maryland or northern Virginia. Both states have equally leafy streets and good schools. But Virginia has plenty of conservative neighbourhoods with megachurches and Bushites you've heard of living on your block. In the posh suburbs of Maryland, by contrast, Republicans are as rare as unkempt lawns and yard signs proclaim that war is not the answer but Barack Obama might be.

At a bookshop in Bethesda (one of those posh Maryland suburbs), Steven Balis, a retired lawyer with wild grey hair and a scruffy T-shirt, looks up from his *New York Times*. He says he is a Democrat because of “the absence of alternatives”. He comes from a family of secular Jews who supported the New Deal. He holds “positive notions of what government actions can accomplish”. Asked why he moved to Maryland rather than Virginia, he jokes that the far side of the river is “Confederate territory”. Asked if he has hard-core social-conservative acquaintances, he answers simply: “No.”

## Groupthink

Because Americans are so mobile, even a mild preference for living with like-minded neighbours leads over time to severe segregation. An accountant in Texas, for example, can live anywhere she wants, so the liberal ones move to the funky bits of Austin while the more conservative ones prefer the exurbs of Dallas. Conservative Californians can find refuge in Orange County or the Central Valley.

Over time, this means Americans are ever less exposed to contrary views. In a book called “Hearing the Other Side”, Diana Mutz of the University of Pennsylvania crunched survey data from 12 countries and found that Americans were the least likely of all to talk about politics with those who disagreed with them.

Intriguingly, the more educated Americans become, the more insular they are. (Hence Mr Miller's confusion.) Better-educated people tend to be richer, so they have more choice about where they live. And they are more mobile. One study that covered most of the 1980s and 1990s found that 45% of young Americans with a college degree moved state within five years of graduating, whereas only 19% of those with only a high-school education did.

There is a danger in this. Studies suggest that when a group is ideologically homogeneous, its members tend to grow more extreme. Even clever, fair-minded people are not immune. Cass Sunstein and David Schkade, two academics, found that Republican-appointed judges vote more conservatively when sitting on a panel with other Republicans than when sitting with Democrats. Democratic judges become more liberal when on the bench with fellow Democrats.

Residential segregation is not the only force Balkanising American politics, frets Mr Bishop. Multiple cable channels allow viewers to watch only news that reinforces their prejudices. The internet offers an even finer filter. Websites such as [conservativedates.com](http://conservativedates.com) or [democraticingles.net](http://democraticingles.net) help Americans find ideologically predictable mates.

And the home-schooling movement, which has grown rapidly in recent decades, shields more than 1m American children from almost any ideas their parents dislike. Melynda Wortendyke, a devout Christian who teaches all six of her children at her home in Virginia, says she took her eldest out of public kindergarten because she thought the standards there were low, but also because the kids were exposed to a book about lesbian mothers.

“We now live in a giant feedback loop,” says Mr Bishop, “hearing our own thoughts about what's right and wrong bounced back to us by the television shows we watch, the newspapers and books we read, the blogs we visit online, the sermons we hear and the neighbourhoods we live in.”

## Shouting at each other

One might ask: so what? If people are happier living with like-minded neighbours, why shouldn't they? No one is obviously harmed. Mr Bishop does not, of course, suggest curbing Americans' right to freedom of association. But he worries about some of its consequences.

Voters in landslide districts tend to elect more extreme members of Congress. Moderates who might otherwise run for office decide not to. Debates turn into shouting matches. Bitterly partisan lawmakers cannot reach the necessary consensus to fix long-term problems such as the tottering pensions and health-care systems.

America, says Mr Bishop, is splitting into "balkanised communities whose inhabitants find other Americans to be culturally incomprehensible." He has a point. Republicans who never meet Democrats tend to assume that Democrats believe more extreme things than they really do, and vice versa. This contributes to the nasty tone of many political campaigns.

Mr Bishop goes too far, however, when he says the "big sort" is "tearing [America] apart". American politics may be polarised, but at least no one is coming to blows over it. "We respect each other's views," says Mrs Wortendyke of the few liberals in the home-schooling movement. "We hate each other cordially," says the liberal Mr Balis.

## Unions and the election

### The voice of labour

Jun 19th 2008 | NASHUA, NEW HAMPSHIRE  
From The Economist print edition

#### What union members want

OUTSIDE one of John McCain's town-hall meetings stands a throng of protesters. There are anti-war Quakers and someone stoically sweating in a polar-bear suit, but the biggest group consists of union members.

One of them, Tom Callaghan, has gone to a lot of trouble to make a plywood bus, the "Stuck in the Rut Express", mocking Mr McCain's "Straight Talk Express". Mr Callaghan has stuck a picture of Mr McCain looking clueless in the driver's seat.

America's labour unions are limbering up for a fight. They see a rare opportunity for Democrats to control the White House and both arms of Congress, and are determined not to let it slip by. They want universal health care and decent pensions, and protection against callous managers and foreign competition. With union membership tumbling in the private sector, they want an end to the rule that obliges workers to hold a secret ballot before unionising.

This week, the American Federation of State, County and Municipal Employees joined forces with [MoveOn.org](#), a pressure group, to air a television spot. In it, an actress with a baby says: "John McCain, when you say you would stay in Iraq for 100 years, were you counting on Alex? Because if you were, you can't have him." This sort of thing is the most visible part of the union campaign, but perhaps the least important.

Unions are good at sending someone you trust to knock on your door. The AFL-CIO, an umbrella group, has a budget of \$53m for grassroots activities related to the election. They expect to reach more than 13m voters in union households, concentrating on a list of 24 battleground states and giving top priority to Ohio, Pennsylvania, Wisconsin, Michigan and Minnesota. These five are all must-win states where unions are strong.

Overall, unions are catching up with business in the amount they spend on electioneering. In 2000, firms and their employees spent three times as much as unions. By 2006, it was only twice as much. And the unions' money probably goes further. The AFL-CIO aims to deploy 250,000 campaign volunteers this year. And whereas other groups sometimes ring doorbells at random, unions know where their members live and have a good idea what each one cares about.

Thanks to years of diligent data-collection and a host of local volunteers, they can put someone on your doorstep who not only knows what is going on at your workplace, but can also give you a leaflet on the candidates' positions on, say, health care, if that is your chief concern. Undecided voters in union households can expect as many as 30 visits, phone calls or fliers by November 4th.

The AFL-CIO has not yet formally endorsed Barack Obama. But it has prepared a helpful booklet denouncing Mr McCain, which gives chapter and sometimes tendentious verse on policies of which its members might disapprove.

Many union members are culturally conservative whites who might be expected to vote Republican, especially now that Mr Obama, rather than Hillary Clinton, is the Democratic nominee. But if suitably educated, they tend to vote with their pocketbooks, reckons Karen Ackerman, the AFL-CIO's political director. In 2006, three-quarters of those of its members who actually voted backed the candidate their union endorsed. "I think my gun rights are pretty secure," says Bill Cowette, an electrician protesting against Mr McCain in New Hampshire. He worries more about the rising price of petrol and "companies going overseas".



## The Supreme Court

## Stuck with Guantánamo

Jun 19th 2008

From The Economist print edition

## The implications of the court's ruling granting detainees habeas corpus rights



**You may have the body, or perhaps you may not**

FOR the third time in four years, the Bush administration's policies on the detention of suspected terrorists have come under fire from the Supreme Court. On the first two occasions, the executive promptly introduced measures to overcome the judicial blockage. It is likely to do so again. But by ruling that foreign detainees at Guantánamo Bay have the same constitutional right to habeas corpus protections as "enemy combatants" held on American soil, the court has stripped the supposedly law-free zone of its principal *raison d'être*.

Predictably, the court's 5-4 ruling, allowing Guantánamo detainees to challenge their detention in American civilian courts, has attracted a lot of criticism. John McCain, the Republican presidential candidate, described it as "one of the worst decisions in the history of this country" (see [article](#)). Hitherto, he had been regarded as a moderate in the "war on terror", sponsoring a law to protect detainees from torture and other harsh interrogation techniques and calling for the closure of Guantánamo. Now he is increasingly eager to emphasise his national-security credentials while casting Barack Obama, his Democratic rival, as soft on terrorism.

But some of the sharpest criticism came from within the court itself. John Roberts, the chief justice, berated his five colleagues who delivered the majority opinion for striking down as inadequate "the most generous set of procedural protections ever afforded aliens detained by this country as enemy combatants." A bit more of the control of America's foreign policy had been lost to "unelected, politically unaccountable judges," he thundered. Another conservative, Antonin Scalia, said the ruling, which "blatantly misdescribes important precedents", would "almost certainly cause more Americans to be killed".

The American naval base at Guantánamo Bay, a 45-square-mile (115 square km) parcel of land leased in perpetuity from Cuba since 1903, was chosen as a place to house suspected terrorists precisely because it was believed to be beyond the reach of domestic and international law. The court has shown that assumption to be wrong. But that does not mean that the remaining 270 detainees—of a total of around 770 who have passed through the camp since 2001—are all about to be released.

Although Cuba still has formal sovereignty over Guantánamo, America has had complete control and jurisdiction over the territory for more than 100 years, the court said. So constitutional protections, including habeas corpus, did apply. Though Congress and the president had the power to acquire and dispose of territories, "to hold that the political branches may switch the constitution on or off at will would lead to a regime in which they, not this court, 'say what the law is'," Justice Anthony Kennedy

protested.

After the court first ruled in 2004 that the detainees had the right to challenge their detention, the government set up military tribunals to see whether the detainees had been correctly designated as "enemy combatants". But the court has now ruled these to be neither an effective nor adequate substitute for habeas corpus hearings before a civilian court, with all the normal due-process protections. This should allow suits filed by some 200 Guantánamo detainees to proceed.

But several questions remain unanswered. The court did not say, for example, whether America's "war on terror" is a real war, under which enemy combatants can be held without charge "for the duration of hostilities". Nor did it comment on the special "military commissions" set up to try certain detainees for alleged war crimes. Only 19 have so far been charged. The government says their trials will now go ahead as planned. But the detainees' lawyers say their habeas corpus challenges could take months, if not years.

Mr Bush has said he will abide by the court's ruling, though he disagrees with it. Robert Gates, the defence secretary, is pondering "what we ought to do next". Last month he admitted that his efforts to find a way to close the camp had been brought to a "standstill...[by] a serious not-in-my-back-yard problem". America, he confessed, was "stuck" with Guantánamo.



## Pleasing the base

### Twist and shout

Jun 19th 2008

From The Economist print edition

#### The problems of pleasing everyone

JOHN MCCAIN'S characterisation of the Guantánamo decision comes at an awkward time. This week, he strayed perilously close to being indicted for the deadly sin of flip-flopping, which famously helped doom John Kerry's presidential bid in 2004.

The candidate's excoriation of the Supreme Court seemed like overkill, given the limited nature of the judgment, and doubly odd given that Mr McCain supports the immediate closure of the prison camp and the transfer of its prisoners to the mainland. That would give them far greater protection than anything the court has done. But it does, of course, please the Republican base, which has its doubts about Mr McCain and which may be tempted to stay at home in November.

Mr McCain has been throwing other bits of red meat rightwards as well. He has recently proposed expanding George Bush's tax cuts, though he originally voted against them. On June 16th he proclaimed that he supports offshore drilling along America's coastline, something he opposed last time he ran. To be sure, the global energy crisis makes the argument for drilling stronger than it was during the 2000 presidential campaign. But this base-pleasing policy shift sits oddly with Mr McCain's bid to paint himself as a green candidate and as a maverick among Republicans. So he was also at pains to reassure green voters, stressing that he is still opposed to drilling for oil in the Arctic wildlife reserve in Alaska. The base doesn't like that.

None of this adds up to a flip-flop of Kerryan proportions, though it is not the kind of straight talk on which the senator prides himself. For every voter reassured on the right, Mr McCain runs the risk of driving away one or more in the independent centre, where elections are won and lost—so those voters, too, have to be mollified. If he goes on dancing like this, commented the *Washington Post*, he's liable to break a hip.

## Flooding in Iowa

### As high as an elephant's eye

Jun 19th 2008 | WALCOTT, IOWA  
From The Economist print edition

#### Havoc in the Midwest



DON HOLST, surveying his farm near Walcott, Iowa, on June 17th, saw glistening pools where corn stalks should have been. Where the water had receded the earth was muddy, dotted by feeble plants. "I consider us lucky," Mr Holst insists. Much of his farm has survived. Others have seen their land almost totally submerged.

In a region where productivity depends on the weather, Mother Nature has not been kind, wreaking havoc from Nebraska to Indiana. Although there have been no calamities on the scale of Hurricane Katrina, tornadoes and rain have caused considerable damage. In Iowa, flooding has led the federal government to declare 29 counties disaster areas. The governor has given the state's disaster designation to 83, out of 99 counties in all. Some 36,000 Iowans have been evacuated, mainly from Cedar Rapids, where streets became rivers late last week.

There is more trouble to come. The Mississippi is spilling over its banks in Iowa, Illinois and Missouri. At least 20 levees have failed and cities as far away as St Louis, Missouri, are bracing themselves for rising water. George Bush is scheduled to visit Iowa on June 19th, eager to improve on his response to Katrina. Barack Obama has already upstaged the president: on June 14th he put on jeans, picked up a shovel and filled sandbags in western Illinois.

A full assessment of the damage will take some time, but the flood's effects will not be confined to the Midwest. Iowa is America's largest producer of corn and soyabean; 16% of the state's tillable acres were under water as of June 16th, according to the Iowa Farm Bureau. Growers across the Midwest were already expecting lower yields after a cold, rainy spring. According to the Agriculture Department's newest estimate, 43% of the year's corn crop is in fair to very poor condition. On June 18th corn futures for July jumped to \$7.46 a bushel. The "Great Flood of 2008", as some are already calling it, will be felt from New York to New Delhi.

## Visas

**Beauty and the Geek**

Jun 19th 2008 | NEW YORK  
From The Economist print edition

**A new bill proposes more visas be allocated to fashion models**

IT'S not often that fashion models are paired with IT workers, except in the lurid fantasies of computer geeks. But because of a decision made back in 1990 they must compete for the same over-subscribed H-1B, a temporary work visa for specialised occupations. Until 2004, when the government lowered the cap on the number of H-1Bs it issued, it didn't matter so much. But now demand has far outstripped the limited number of visas available, and many foreign models are being denied the chance to sashay down America's catwalks.

Anthony Weiner, a New York congressman, wants to fix this tragic glitch. He has proposed a bill amending the rules so that the models will be reclassified into their own special immigration category. This would free up more visas for the nerds; and it would allow 1,000 models to strut their stuff in America each year, compared with just 349 in 2007, half the annual number admitted between 2000 and 2005.

Only 65,000 H-1B visas are awarded annually and they get snapped up within days of becoming available, most of them going to tech workers. Companies like Infosys and Microsoft were among the top H-1B users in 2007. But even these companies are being constrained. Bill Gates, Microsoft's chairman, testified to a Senate committee last year that the only way to solve the "critical shortage of scientific talent" was to open up the country's doors.

Steve King, an Iowa congressman, thinks the bill should be called the "Ugly American Act" because it implies there are not enough beautiful people in the United States. But Mr Weiner, a bachelor accused by the tabloids and his fellow politicians of using the visa issue to get himself a glamorous date, says he's only thinking of New York's economy, which is heavily involved in the fashion industry.

The business generates thousands of jobs and millions in tax revenue: the average photo-shoot costs about \$100,000. If a foreign model is denied entry, he says, the production is likely to be lost to other countries. New York's skyline or California's hills can be easily photoshopped in later. This "beauty drain", as the newspaper *Politico* calls it, affects make-up artists, stylists and photographers as well as media companies and advertising agencies.

The visas for models bill is still far from becoming reality, and comprehensive immigration reform is a distant dream. Luckily though, supermodels like Gisele Bündchen are in the clear. They are eligible for O-1 visas, given to those with "extraordinary ability," like Nobel laureates.

## Lexington

## The class warrior

Jun 19th 2008

From The Economist print edition

## Jim Webb would make a poor running-mate for Barack Obama

Illustration by Phil Disley



IN 1983 Jim Webb spent a while working as a journalist in Lebanon. "On any given day in Beirut, one never knew who was going to shoot at whom, or for what reason," he recalls in his new book, "A Time to Fight". During a typical skirmish he observed, Lebanese army soldiers started shooting at some Druze militiamen, who responded by firing on American marines (who were supposed to be keeping the peace). Then a Syrian unit let rip its heavy machineguns at both the marines and the Lebanese. Meanwhile, in the distance, Christian Phalangist militiamen "engaged in an artillery duel with another unit that we were unable to identify."

Mr Webb's experiences in Beirut (where 241 Americans were killed in a suicide attack that year) convinced him that America should never occupy territory in the Middle East. When the idea of invading Iraq was first mooted, he opposed it. He predicted America would get stuck there for 30-50 years, that Muslims everywhere would be outraged and that Chinese and Iranian influence in the region would increase at America's expense.

In his prescience on this issue, Mr Webb, who is now a senator, has much in common with Barack Obama. The difference is that Mr Webb is a military man. He attended the Naval Academy (also John McCain's alma mater), was decorated four times and wounded twice in Vietnam, and served as Ronald Reagan's secretary of the navy. His father was in the air force; his son served in Iraq. No one, therefore, can accuse Mr Webb of being an effete peacenik. That lends weight to his views on Iraq, and leads many Democrats to conclude that Mr Obama should pick him as his running mate.

In some ways, Mr Webb would be a shrewd choice. He is from Virginia, a battleground state with 13 juicy electoral votes. At 62, he is reassuringly older than Mr Obama, but he has been a politician for less than two years, which fits nicely with Mr Obama's message of freshness and change. Among party activists he is a hero, since his white-knuckle victory in 2006 handed control of the Senate to the Democrats. And he compensates for some of Mr Obama's weaknesses. Unlike his party's flag-bearer, Mr Webb understands America's warrior culture. He also has solid experience both of grappling with bureaucrats and of running something big: the entire navy and marine corps.

Mr Obama is a scholarly and cosmopolitan chap who has so far struggled to connect with working-class whites. During the primaries, he lost in West Virginia to Hillary Clinton by a staggering 41 percentage points. Mr Webb, though also a successful writer, is a gruff warrior who glories in his humble southern roots. His mother grew up sleeping on a corn-shuck mattress and brushing her teeth with twigs. His uncle Tommy once took on three men together in a brawl. Other Democrats may talk about thumping

Republicans; Mr Webb has punched Oliver North repeatedly in the face. (During a boxing match at the Naval Academy which, to be fair, Mr North won.)

Mr Obama enjoys huge support among blacks and rich white liberals. That was enough to win him the Democratic nomination. But to win the general election, he needs Reagan Democrats—working-class whites who worry about national security, are somewhat culturally conservative and whom the Gipper was able to persuade to change political sides. These folks might well prefer a plain-spoken war hero like Mr McCain to the articulate and arugula-munching Mr Obama. But they would vote for Mr Obama if he ran with another plain-spoken warrior, especially if that warrior questions the ban on school prayer and has a union card, two Purple Hearts and three tattoos.

That, at least, is what Mr Webb's boosters argue. No one but Mr Obama knows whom he will pick, but the buzz around Mr Webb is loud enough to make him the favourite on Intrade, a betting website. So it is worth examining his weaknesses, too.

## On the other hand

Mr Webb is an indifferent campaigner. His speeches are awkward, he clearly dislikes all the flesh-pressing and he looks like an angry potato. He has infuriated some Democrats (but pleased others) by bucking party orthodoxy on matters of race and sex. He thinks it unfair to poor whites that racial preferences designed to atone for slavery and segregation should be extended to virtually every other minority group. And in 1979 he wrote an article opposing combat roles for women entitled, simply: "Women Can't Fight". (He has since changed his mind.)

The main worry about Mr Webb, however, is that he is a genuine fire-breathing economic populist. He appears actually to believe the sort of stuff that Mr Obama only says during Democratic primaries. Since vice-presidents sometimes become presidents, this matters. American workers, says Mr Webb, "are at the mercy of cut-throat executives who are vastly overpaid, partly as a consequence of giving [the workers'] jobs away to other people." Illegal immigration and globalisation "threaten to dissipate" the American middle-class way of life. He predicts that, unless the government acts to restore "economic fairness", America "may well go the way of ancient Greece [or] greed-ridden Rome".

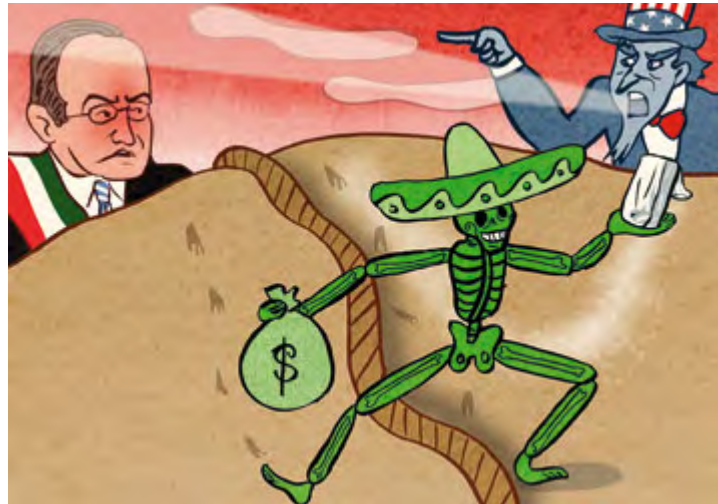
America may be horribly unequal, but it is not, as Mr Webb imagines, apocalyptically so. And judging by his book, Mr Webb has only a shaky understanding of the economic system he decries. He thinks South Korea is more productive than America, and that "most" investors are among the wealthiest 1% of Americans. (In fact, about half of Americans own shares.) He is worryingly hazy about how he would make America fairer. But his instincts are plainly hostile to the free flow of goods, investment and people across borders. Mr Obama, who has recently started to sound less protectionist on the campaign trail and has appointed a team of impeccably centrist economic advisers, can surely do a bit better.

## Mexico and the United States

## A wary friendship

Jun 19th 2008 | MEXICO CITY AND WASHINGTON, DC  
From The Economist print edition

Illustration by Satoshi Kambayashi



**Amid bad temper and wounded pride, Mexico and the United States inch towards compromise on a plan to boost the fight against drug crime**

IN AMERICAN psyches, the war with Mexico of 1846-48 is muddled in with many others, and earns no more than a passing mention in history books. By contrast, every Mexican schoolchild is taught the story of the “boy heroes”—six military cadets who fought to the death rather than surrender to the invaders. Mexico lost nearly half its territory, comprising what is now the south-western United States. Of course relations have improved much since then, but history can still amplify everyday strains. Trade and cross-border investment have flourished under the North American Free-Trade Agreement of 1992. But recently the relationship has come to be defined more by illegal commerce—in people and especially in drugs.

At a meeting with George Bush in Mérida in March 2007, Felipe Calderón took an unusual step for a Mexican president: he asked the United States to help him fight the criminal mafias based in his country that supply much of his neighbour's drug habit. Under the “Mérida initiative”, the Bush administration promised \$1.4 billion over three years in hardware (transport and surveillance planes, helicopters and communications systems) and training, with another \$100m for Central America.

This was controversial in Mexico—but also in Washington, DC. In the hope of getting it approved swiftly, the administration tacked the aid onto a bill for supplementary funds for the wars in Iraq and Afghanistan. The Democrats in Congress were angry that they were not consulted in more detail before the bill was drawn up.

In both the House and the Senate they responded with changes. These assure funding only for the first year, in which Mexico will get only \$400m, subject to conditions. At one stage they also included a requirement that Mexican troops accused of abuses should face civilian trials. Another amendment proposed that human-rights groups should judge whether the aid should continue.

These drafts prompted Mexico's government to say that it would reject the aid. Under pressure from nationalists at home, officials had stipulated that they would neither accept American troops operating on their soil nor political conditions.

Weeks of negotiation between Mexico, the administration and the Democrats now seem close to achieving a compromise. The latest proposal says that 15% of the resources to be transferred will be subject to America's State Department confirming that Mexico is increasing the accountability of its

police, and doing more to enforce existing laws that ban torture and require civilian trials of abuses by the security forces.

The debate was acrimonious. For many Mexicans it recalled a previous ritual (toned down in 2001) when the State Department “certified” each year whether other countries were co-operating in the “war” on drugs while the United States was patently failing to win this at home. The Mérida initiative is supposed to set the seal on a new era in which co-operation has replaced suspicion and name-calling.

In fact, if not in government rhetoric, it marks a small, incremental change. The sums involved are not large. Mexico already spends \$2.5 billion a year fighting drugs—while American officials reckon that up to \$20 billion of drug money crossed the border in cash alone last year. Mexican and American drug fighters already work closely together and share intelligence in a way that was previously unthinkable, notes an official from America's Department of Homeland Security.

But the Mexicans, as well as America's Democrats, have grumbles. Eduardo Medina Mora, Mexico's attorney-general, has repeatedly asked the Americans to do more to stop the flow of illegal weapons from north to south. In response, the United States' Bureau of Alcohol, Tobacco and Firearms has started sharing information with Mexican counterparts, says Thomas Shannon, the State Department's top official for Latin America.

Mr Calderón launched his crackdown against the drug gangs because he thought they were imperilling public safety and the functioning of the state. But can it work? Some people in both countries argue that drug prohibition is bound to fail. Many more students of the drug problem have concluded that money spent on demand reduction has a much bigger impact than attempts to curb supply.

More specifically, the aid can only work in the medium-term if Mexico builds an effective national police force. Mr Calderón has deployed thousands of army troops on a supposedly temporary—but apparently indefinite—basis against the drug gangs. The federal police force is partly composed of army units and officers on secondment. But the army is not trained or equipped to do preventative police work or investigation, says Juan Salgado, a policing specialist at the Iberoamerican University in Mexico City. He thinks American training might be better used to strengthen local police forces.

Mexican officials hope that the Mérida aid will bring some useful kit and send a message to the drug gangs that Mr Calderón has allies. It shows that at an official level at least, relations between Mexico and the United States are much more constructive than they were. But they remain less harmonious than those between, say, Canada and the United States. Mexico's inability to police itself, and America's prohibition of, but continued demand for, illegal migrants and drugs ensure that.



## Venezuela's economy

## A funny way to beat inflation

Jun 19th 2008 | CARACAS  
From The Economist print edition

## Hugo Chávez invites the private sector to help him build socialism

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TO BUILD his promised socialist revolution, Hugo Chávez seems to have concluded that he needs the help of capitalist businessmen. Earlier this month he invited a handpicked group of captains of finance and industry to the presidential palace. He lectured them about the imminent demise of capitalism, but then proceeded to offer them cheap credit and joint ventures to “reactivate” production.

That such efforts are needed is at first sight odd. Although it sells at a discount because much of it is heavy and sulphurous, the price of a barrel of Venezuelan oil recently topped \$120. This year, Mr Chávez says, oil will contribute \$75 billion to government revenues, up from \$43.5 billion last year and only around \$7 billion when he came to power in 1999.

Nevertheless, the economy slowed sharply in the first quarter of this year (see chart). That came as a surprise to the planning ministry, which had forecast growth of 6.7%. To make matters worse, the government's inflation forecast of 12% for this year has proved even more wildly optimistic. This is particularly bad news for the poor, Mr Chávez's main constituency. The price of food is rising faster than the overall index. According to the Centre for Documentation and Analysis (CENDA), a group linked to the trade unions, the cost of feeding a family of five rose by 2.4% in May and stands some 60% higher than the minimum wage, even though this was recently increased. For the first time in the past three years, the living standards of ordinary Venezuelans are declining.

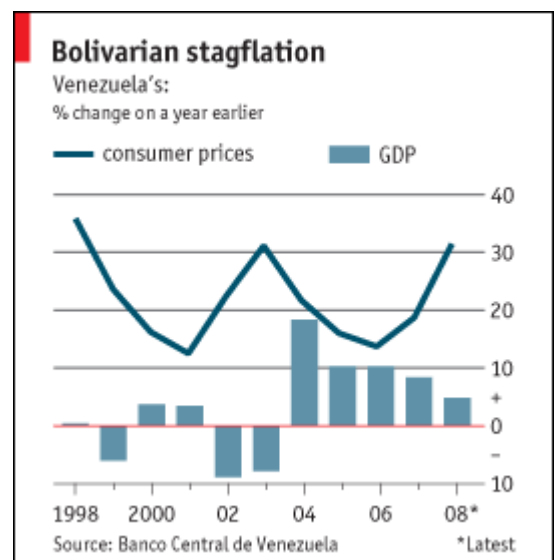
After losing a referendum on constitutional change last December—Mr Chávez's first electoral defeat—the government has made efforts to tackle the sources of popular discontent, including food shortages. It has used its oil wealth to import more food. But as fast as one gap is plugged another appears.

CENDA reports that staples such as black beans, rice, maize flour and meat were missing from the shelves of many shops in May. Butchers have staged protests, complaining that price controls oblige them to sell some cuts below cost. The government's consumer watchdog accuses them of hoarding and speculation, complaining that they are selling under the counter to restaurants at a higher price.

Officials rightly point out that the shortages arise partly because Venezuelans are consuming more. But they also reflect big economic imbalances. The government has channelled much of its oil wealth into handouts and subsidies, while its socialist policies have provided little incentive to increase production. Private investment has all but dried up. Businessmen have been scared by Mr Chávez's recent nationalisations of the cement and iron and steel industries, and some dairy companies. Most industries are producing “at the limit” of their capacity, admits Andrés Izarra, the information minister.

The president has tacitly recognised the problem. As the inflation rate climbed above 3% a month late last year, he silently applied the brakes: the government raised interest rates and slowed the rate of increase in public spending. It also managed to narrow the gap between the official exchange rate and the price of the dollar in the free market. It did so partly by stepping up the sale of bonds, which can be legally traded for dollars, but it helped that political tension subsided somewhat after the referendum.

The government's new-found appetite for austerity has strict limits. In November Mr Chávez faces regional elections which many Venezuelans will see as an unofficial referendum on his rule. He has made



it clear that he will not cut social spending. There is little sign that the private sector will respond to Mr Chávez's appeals to help to build socialism. All this suggests that the battle against inflation will be hard. To wage it, the president this week named as his finance minister Alí Rodríguez, a veteran official who has close ties to Cuba, Venezuela's closest ally. Perhaps he has noticed that Cuba's communist government has recently concluded that private farming, rather than socialism, is the best way to feed the people.

## Drugs in the Andes

## The unstoppable crop

Jun 19th 2008

From The Economist print edition

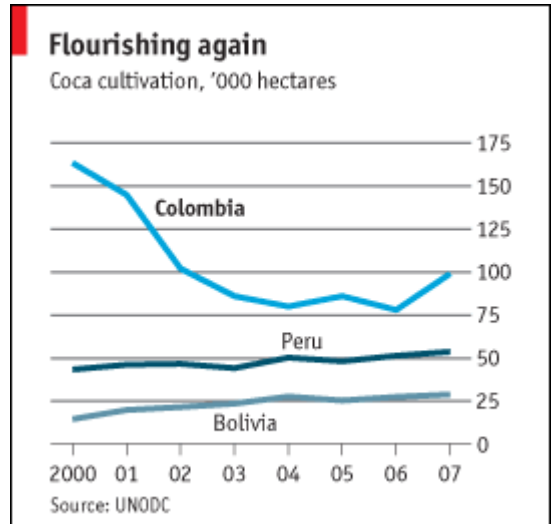
## A big rise in coca in Colombia

IT IS almost a decade now since the United States and Colombia launched a joint plan to cut the output of coca (the raw material for cocaine) by 50% in six years. Plan Colombia has been effective as a counter-insurgency exercise, helping to beat back guerrillas and paramilitary warlords. But it has been a relative failure when it comes to coca.

According to a survey by the United Nations released this week, the area under coca in the three main producing countries increased by 16% last year to the highest figure since 2001 (see chart). The bulk of the increase came from Colombia (up 27%), though cultivation there is still almost two-fifths below its peak in 2000.

This is despite superhuman efforts by Colombia's government to wipe the crop out. President Álvaro Uribe first unleashed American aircraft to spray weedkiller on the coca fields (153,000 hectares, or 378,000 acres, in 2007 alone). But the spraying hit food crops, and was not very effective. So the government has backed it up with manual eradication. Last year, gangs of labourers ripped out 67,000 hectares of coca.

But the UN survey shows much new planting near the Pacific coast, well away from the drug heartland in the south-eastern lowlands. Much of it is in smaller fields that are harder to detect. The UN figures are measurements based on satellite photography. Most specialists consider them more accurate than estimates of the coca crop by the American State Department. The UN reckons that productivity is falling, so total cocaine output is roughly static. More than enough evidence, perhaps, that attacking drug supply is a job for Sisyphus.



## Argentina's farm dispute

### Cristina's climbdown

Jun 19th 2008 | BUENOS AIRES  
From The Economist print edition

#### Calling Congress back to life

STRONG presidents have been common in Argentina. But even judged by local practice, Néstor Kirchner concentrated power during his term from 2003 to 2007. He governed largely by decree, all but ignoring Congress, where a pliant majority granted him “superpowers” to reassign budget allocations freely. His wife and political partner, Cristina Fernández, who succeeded him as president last year, began just as imperiously. But unable to bully striking farmers into submission, she has turned to Congress for support.

Ms Fernández's problems began in March when she decreed a sliding scale of tax rates on Argentina's farm exports. The tax on soyabeans rose to 40% from 27% under Mr Kirchner. It would reach a marginal rate of 95% if the price of a tonne of soyabeans were to rise from \$571 (its level on June 18th) to \$600. With inflation already eroding their profits, farmers' patience snapped. They staged protests across the country and halted grain sales.

Mr Kirchner had faced down several foreign interests he saw as foes, such as holders of Argentina's defaulted bonds and the IMF. He urged his wife, both privately and publicly, to take a similarly hard line with the farmers. But her officials' efforts to paint the protesters as a rural oligarchy bent on toppling the government have done her little good. Mr Kirchner was fortunate in benefiting from a robust economic recovery that began before he took office. Now Argentines are fed up with the inflation and energy shortages bequeathed by his expansionary policies. The farmers have their sympathy.

The farmers have not been swayed by government offers of rebates for small-scale producers or by a lowering of the top tax rate. On June 14th, with a new round of protests under way, the police used force to break up a roadblock, arresting a popular farmers' leader. This was selective law-enforcement: for years the government has refused to deploy the police against a similarly illegal roadblock by its own supporters only a few miles away in protest at a pulp mill in neighbouring Uruguay.

Two days later, demonstrators thronged many Argentine cities, banging pots and pans in exasperation. Ms Fernández responded by sending a bill to Congress re-iterating the new taxes. Her Peronist party holds comfortable majorities in both houses. But she cannot be assured of its approval. Although opposition parties remain weak, resistance to the Kirchners is stirring within Peronism.

By throwing the issue into Congress's lap, Ms Fernández may have achieved an elegant climbdown. But that cannot disguise a crushing political defeat. The most recent opinion polls give her an approval rating of just 20%, down from 54% in February. Her husband's popularity is plummeting fast too.

The Kirchners have tried to rally their supporters by claiming that Argentine democracy is threatened. That is one way of looking at it. Another is that the farmers and their supporters—and now the Congress—are breathing life into democracy after several years of near-autocracy.

## Canada

**Femme fatale**

Jun 19th 2008 | MONTREAL  
From The Economist print edition

**Sex, lobbying and politics in Quebec**

WHEN Maxime Bernier, a neophyte Conservative from Quebec, showed up to be sworn in as foreign minister last summer with a beautiful brunette in a plunging décolleté, it got him noticed. It also seemed to confirm the notion that Quebec produces a more dashing and dynamic brand of politician than the usual stodge. But now Mr Bernier's companion that day, Julie Couillard, has reinforced a less flattering stereotype: that Quebec is a place where politics mixes uncomfortably with corruption and criminals.

Last month Mr Bernier was sacked after Ms Couillard, who had ended their relationship, said that he had left classified documents at her home. What made this fatal for the minister was Ms Couillard's colourful past. Two of her former lovers were involved with a motorcycle gang that in the 1990s waged a murder-filled campaign for control of Quebec's drug market. One of the men had been murdered and left in a ditch a week before he and Ms Couillard were to wed. She married another biker (later a police informant), for whom her father grew marijuana. More recently, she lived with a third man with criminal ties who had bid on airport-security contracts (he later killed himself). Her earlier consorts included other mobsters.

When she took up with Mr Bernier, Ms Couillard worked for Kevlar Group, a property developer seeking a contract for a C\$30m (\$30m) government building in Quebec City. It was a Kevlar boss who introduced her to Mr Bernier. Federal officials concede that she lobbied the former minister. She also lobbied Bernard Côté, a senior adviser to Michael Fortier, the public-works minister, another Quebecker. And yes, Ms Couillard dated Mr Côté too. He has also resigned.

Ms Couillard chose not to accept an invitation to answer questions about her conquests from a House of Commons committee on June 18th. Stephen Harper, Canada's Conservative prime minister, originally chided the opposition as "gossipy old busybodies" for dwelling on Ms Couillard. But the remarkable career of a "one-woman wrecking crew" (as one newspaper called her) may prove damaging to a government that took power pledged to clean up sleaze. That applies especially in Quebec. The Conservatives won ten seats there in 2006 because of Liberal sleaze. Mr Bernier was their best hope of winning more—and thus endowing their minority government with a majority. The new symbol of Conservatism in Quebec is Ms Couillard.

## Afghanistan

## Still in the fight

Jun 19th 2008 | KABUL  
From The Economist print edition



## A good week in the war for the Taliban's propaganda machine

EVEN NATO officials gave grudging respect to the audacity of the Taliban raid that sprang the entire population of the main prison in the southern city of Kandahar on the night of June 13th. But the ensuing speculation that the Taliban may be about to take Kandahar and mount a serious challenge in the south to the Afghan government seems overblown.

The jailbreak, a combined assault by heavily armed fighters and suicide-bombers, blasted open the crumbling mud brick Sarposa prison and sent more than 1,000 inmates scurrying into the nearby countryside. It was reported that the Taliban kept a fleet of mini-buses with their engines running outside to collect the 450 Taliban militants housed in the jail.



Until then, the war in Afghanistan had begun quietly this year. The snow in the mountain passes to Pakistan melted, but the seasonal Taliban offensive seen in the past three years largely failed to materialise this time. In Helmand province (see map) and along the eastern border, the dangers to NATO and Afghan troops were no longer the Taliban ambushes and protracted firefights that cost the Taliban dear last summer. Instead, the allies faced a growing threat from roadside bombs. But it seems the

Taliban were saving their best efforts for “spectaculars”. The Sarposha attack cost little but won headlines around the world.

Along the eastern border American forces claims to have had the upper hand against fighters crossing from Pakistan's tribal areas, until renewed negotiations in April between the Pakistan government and militant groups led to an immediate spike in activity in the area. This week President Hamid Karzai made one of his angriest outbursts yet against Pakistan's failure to prevent cross-border incursions, and threatened to send the Afghan army into Pakistan in pursuit.

Western commanders insist that overall the Taliban are wilting under the pressure. NATO, rather than the Taliban, has been initiating much of the fighting, they claim, which explains why more Western soldiers are being killed than last year. Indeed, last month for the first time since 2003, more Western troops (23) died in Afghanistan than in Iraq (21).

In the south April and May were dominated by a joint British and American offensive in Garmser, an area of southern Helmand where British and Taliban fighters had faced each other in stalemate for the past two years. The deployment of 2,300 American marines drove up to 800 Taliban fighters out of fixed positions that included trenches, tunnels and bunker systems. NATO reported 200 Taliban killed for the loss of one American marine.

In the weeks after the Garmser operation NATO detected a significant knock-on effect on Taliban activity elsewhere in the province. Western commanders spoke of the poor co-ordination of Taliban operations, their difficulties with logistics and morale, and the increasing prominence of foreign fighters in their ranks. The past week appears to be the Taliban's riposte. They needed, as one senior British officer puts it, “to show they are still in the fight”.

Not only did the Sarposha jailbreak provide a boost to morale, it gave some substance to the Taliban's assertion that the Afghan government is not in control across the south. The subsequent days have seen reports of hundreds of Taliban fighters massing in the district of Arghandab, close to Kandahar city. This allows the Taliban's tirelessly upbeat spokesmen to announce that they are threatening the city and for the Western press to recall the Tet offensive, which heralded the North's victory in the Vietnam war.

Arghandab is the sort of “close country” that favours the Taliban, with orchards, narrow lanes and a dense civilian population. It is controlled by the Alakozai tribe, which is in general pro-government. But the Taliban has assassinated three prominent tribal leaders in the past year, and the Alakozai have shown signs of disenchantment, disappointed at not enjoying more influence in and around Kandahar under the Karzai administration.

There is a risk of terrorist attacks in Kandahar in the coming weeks. But there is no realistic chance that Kandahar city will fall, and the insurgents are unlikely to stand and fight long in Arghandab. In the nearby district of Panjwai, up to 1,500 Taliban were killed in September 2006 when they rashly concentrated their forces around the village of Pashmul. NATO spokesmen boast of the speed with which a battalion of Afghan National Army soldiers was deployed to Kandahar after the jailbreak. They say this shows the improving capability of the Afghan security forces. That may be true. But in the war of perceptions, the Taliban will consider that they have had the best of the past week.



## Afghanistan's opium poppies

## No quick fixes

Jun 19th 2008 | HELMAND, JALALABAD AND LOWER SHINWAR  
From The Economist print edition

Even a vaunted “poppy-free” province may not stay that way for long



SURROUNDED by his pyramids of fruit and vegetables, Gul Khaliq is a cheerful man. “Thanks to God we have customers, we have security and the people have the money to spend,” says the fruit-seller at the main market in Jalalabad, slapping a watermelon and adding a eulogy to the governor of Nangarhar province, Gul Agha Sherzai. Jalalabad and the governor are both on the up. Millions of dollars of foreign aid and a building boom have dragged the place out of torpor. And Mr Sherzai, a bear of a man known as “the Bulldozer”, has contrived to make Nangarhar officially “poppy-free” this year.

As recently as 2004 Nangarhar was the second-biggest opium producer in the country, after Helmand. It accounts for a big chunk of a drop in Afghan poppy cultivation in 2008 that may exceed 25%. In addition, a harsh winter in Afghanistan has forced down poppy yields. In Nangarhar Mr Sherzai has gained much kudos for imposing the will of the authorities on truculent poppy farmers. But the narco-economy is fiendishly difficult to interpret. Recent research suggests that greed on the part of farmers, at least in this part of the country, is actually a fairly minor factor in the decision to plant poppy.

David Mansfield, a researcher for the Afghan Research and Development Unit, a think-tank, has produced statistics showing that Nangarhar poppy farmers are rarely the richest people in their communities. Their profits from poppy are often barely higher, and sometimes lower, than those from legal crops, particularly where they have to use petrol generators to pump water to their crops.

But there are many less obvious reasons why poppy is likely to remain a mainstay of farmers in many parts of the country. In Lower Shinwar, for example, a district around 80km (50 miles) from Jalalabad, listless unemployed men sit around. They are too far from Jalalabad to benefit from its boom and, despite a new road to the area, there is no transport to take produce out. Moreover, households have an average of 12 members. To grow enough wheat to feed themselves, they would need about two hectares. But farmers generally have no more than half that.

This leaves many trapped in a cycle of debt, exacerbated as each generation subdivides the family land. The legal agricultural economy is all but unsustainable in the absence of other sources of employment, and there are very few. Poppy cultivation offered some respite from the trap. Smugglers would visit farms to buy opium. They made loans against future production ahead of the planting season. Dry opium keeps for up to two years, so farmers can save it as capital and sell when the market looks favourable. The legal economy offers no such facilities.

"We need factories," says Kashwar Bacha, a 50-year-old local farmer. "The shopkeepers have stopped giving us loans. We have to plant poppy next year." So Nangarhar is unlikely to remain poppy free, and risks increased instability as its tight-knit tribes defy the government to plant poppy. Persistent reports of farmers selling livestock and even their daughters in marriage to meet debts tell of desperation.

But if opium-farmers often seem the hapless victims of circumstance, their estimated \$500m in combined annual income is dwarfed by the \$3.5 billion smuggling and refining business. The mafias controlling these trades are increasingly reliant on the involvement of corrupt officials at every level of government.

At the apex of the business are around 15 kingpins, who mostly have no direct links to the business of smuggling but use political influence to ease the movement of drugs and protect figures lower down the chain. All are known to Western intelligence officials, but currently enjoy impunity. One senior Western diplomat says that if the West is to gain credibility it must get President Hamid Karzai to take action against 15 senior officials. "There should be a night of the long knives."

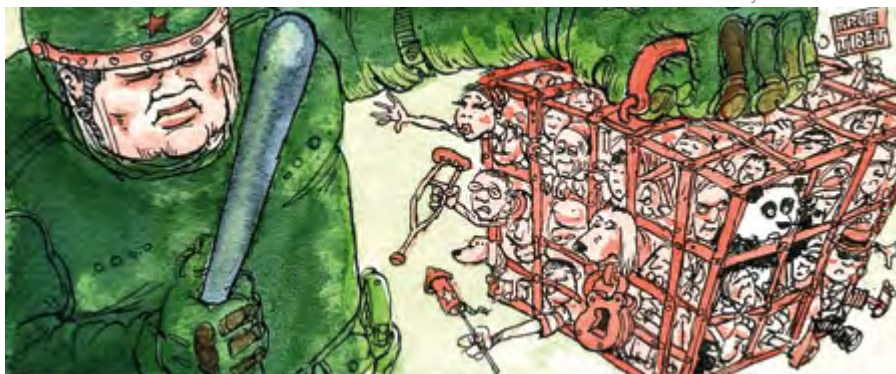
## Beijing Olympics

## Limbering up for the games

Jun 19th 2008 | BEIJING

From The Economist print edition

Illustration by David Simonds



## The security forces rehearse their exercise routine

PETS, prostitutes and prospective political protesters should consider themselves forewarned. The Chinese authorities, doggedly determined to ensure a safe environment for the Beijing Olympics in August, and to avoid surprises or embarrassments, have them in their sights.

No one dismisses the security concerns. With the ever-present threat of terrorism and a number of foreign leaders, among them George Bush, expected to attend the games' opening ceremony, China has no choice but to take security seriously. But the clampdown now under way suggests the government is just as concerned about preventing anything—from political demonstrations to unsightly beggars—that reflects poorly on it, however slightly. The risk is that heavy-handed precautions will take the fun out of what is supposed, after all, to be a sporting event.

Some new restrictions seem reasonable. For three months, for example, fireworks will be banned. Lorries entering Beijing have been coming under closer inspection. So has the mail. Police raids have been stepped up at night-spots, beauty salons and karaoke parlours, which often serve as fronts for prostitution. The press has reported that officials are especially worried about an influx of foreign prostitutes hoping to cash in on the Olympic boom, and that they have launched a campaign to prevent it.

But other measures smack of overkill. Beggars and disabled people have been ordered, and in some cases forced, off the streets. Those from outside Beijing have been threatened with detention unless they go home until the games are over. In your correspondent's own neighbourhood, residents have been told they may walk their dogs only at certain, strictly limited, times of day—and the dogs must carry their papers at all times.

Documents are posing problems for people, too. In one especially damaging consequence of the crackdown, China has tightened visa procedures for foreign visitors of all sorts. Businessmen used to speedy visas are now suffering delays and refusals. Chambers of commerce from Europe, North America, Australia and India are complaining bitterly about trips aborted and business lost.

Long-time foreign residents are faring no better. Visa renewals are no longer routine. Applicants may be told to undertake costly travel and submit their paperwork at Chinese embassies in their home countries. Others are simply told not to bother and to plan instead on being elsewhere.

Authorities have also served notice that Olympic visitors will themselves be carefully watched. A helpful "legal guide" tells foreign athletes, officials, reporters and spectators how to behave. In addition to shunning narcotics, weapons and counterfeit currency, they should abjure "subversive activities" or the "display of religious, political or racial banners". Of course China does not normally allow those things

anyway and, having staked so much prestige on the games, is in no mood to loosen up now. Recent events have only hardened attitudes. After deadly riots in Tibet in March, China's global Olympic-torch relay attracted boisterous protests around the world against a wide range of Chinese human-rights practices. Authorities are keen to prevent any such outbursts on their home turf.

They will probably fail, if only because of the huge number of visitors and the determination of some to make a statement. But ponderous attempts to keep control may dampen the Olympic mood. An ungracious host may give visitors one more reason to protest.

## China, Japan and Taiwan

## Profit over patriotism

Jun 19th 2008 | TAIPEI AND TOKYO  
From The Economist print edition

## A new geographical discovery in Asia: a "sea of peace and co-operation"



THE simmering dispute between China and Japan over the East China Sea has long been high on the list of possible regional flashpoints. It centres on China's development of undersea natural gas and oil deposits straddling what Japan says is the borderline between the two countries' exclusive economic zones. A deal announced on June 18th allows Japanese investment in Chinese projects in return for a profit-share. At the very least, the dispute has fallen down the flashpoint list.

There were small demonstrations against the deal in China. But they were a far cry from the wave of anti-Japanese protests three years ago, when the dispute looked potentially nasty. All the fields are estimated to hold gas equivalent to just three weeks' Japanese consumption but the government had protested loudly at the appearance of Chinese survey vessels and drilling platforms in the disputed area. Though on China's side, extraction might take gas from Japan's.

China ignored calls by Japan to suspend drilling. Planes and patrol vessels from both sides buzzed around the disputed areas. Later in 2005 a Chinese naval squadron appeared near the Chunxiao gasfield (known in Japanese as Shirakaba). One of the ships turned its gun turret on a Japanese reconnaissance plane. Japanese politicians condemned China's gunboat tactics and warned of the risk of conflict.

In endless rounds of negotiations since then, China and Japan have stepped back from the brink. The principle of the gasfields' joint development has long been agreed. But a deal seemed elusive. Intervention from the top was needed but took a long time coming. It followed a visit by Hu Jintao to Japan last month, the first in a decade by a Chinese president. Like Yasuo Fukuda, Japan's prime minister, he champions better bilateral relations. This week Japan announced that its navy is to make an unprecedented port call in China.

For Mr Fukuda, the gas deal presages a "sea of peace and co-operation". In the Chunxiao field, Japan will form a joint venture with two Chinese state-owned companies, with profits split in proportion to their investment. Both sides have agreed that the Longjing field, which more certainly extends across the median line, will in future also be developed jointly, with costs and profits split. Agreement has yet to be

reached on other fields.

The deal kicks matters of sovereignty down the road. The UN's Convention on the Law of the Sea recognises economic rights extending 200 nautical miles (370 kilometres) from a country's shoreline. But the East China Sea is just 360 miles at its broadest. Japan claims its boundary as the median line. But China says its zone extends to the edge of the continental shelf, almost to Japan. The convention does not specify how to resolve overlapping claims.

Territorial matters remain prickly. A reminder came with the unintentional sinking on June 10th of a recreational fishing boat from Taiwan by a Japanese patrol vessel near the Senkaku islands (Diaoyutai in Chinese), which are controlled by Japan but claimed by Taiwan and China. The vessel picked up all 16 passengers and crew.

Given Taiwan's Chinese-imposed isolation, the island is keen to be on friendly terms with Japan, one of the few countries to grant Taiwanese visa-free entry. But over the Senkakus, Taiwanese show an emotional side. They were inflamed by Japan's claim that the Taiwanese skipper was to blame for the collision, and by only vague expressions of regret. The Taiwan government officially recalled its unofficial ambassador to Tokyo, deemed to be too pro-Japanese. And on June 16th nine Taiwanese patrol vessels escorted a boatful of nationalists into Japanese waters.

Mr Fukuda's government is playing the matter down. Admitting the coastguard was heavy-handed, it promised to ensure that legal claims for compensation ran smoothly. Japan's man in Taiwan called on the Taiwanese captain, but offered no formal apology. The matter may die down. But the Chinese have cheekily suggested to the Japanese the joint development of possible gasfields around the Senkakus, too—which would be sure to rile Taiwan.

## Nepal

**Two into one won't go**

Jun 19th 2008 | CHITWAN AND KATHMANDU  
From The Economist print edition

**The once-royal army bristles at enlisting its former insurgent foes**

ON A sun-baked plain four hours' drive south of Kathmandu, the capital, a platoon of Maoist fighters in jungle fatigues is on the move. A cry of "lal salaam!" ("red salute!") pierces the air as the drill instructor orders a halt, and the soldiers make thrusts with their mock-up wooden rifles. Even in the haze of dusk, it is clear there are still two armies in Nepal.

Elections are over, the monarchy scrapped, and a government is being formed. But a host of nation-building tasks lie ahead, none more daunting than the integration of the former Maoist rebels into the national army. This was part of the peace deal in November 2006 that ended a ten-year civil war. But more than 23,000 Maoist soldiers are still awaiting orders in seven United Nations-monitored cantonments. Maoist officers say they are ready for the merger, or to form a separate force as an adjunct to the regular army. The latter suggestion has been dismissed out of hand. But the army command remains deeply suspicious that Maoists in their own ranks would be a red Trojan horse.

An army spokesman has declared that the fighters cannot be integrated yet; they must first be "rehabilitated". Some politicians echo the army's line. A spokesman for the Nepali Congress, the oldest party, argues that a strategy must first be developed to ensure the army is not "polluted". Others say the army itself might need cleansing. Until the peace deal it was known as the Royal Nepalese Army. Indrajit Rai, a Kathmandu-based analyst, says it is now split: some senior officers with hereditary links to the monarchy are still loyal to the deposed king, Gyanendra, and want him to retain a symbolic role. They are at odds with a more flexible group who have worked their way up the ranks.

The UN mission has supervised the storage of weapons from both sides and screened Maoists for their eligibility for the army. Out of more than 31,000 candidates, some 19,600 passed muster. This is a large number relative to the army as a whole, which has expanded to 93,000 troops from about 50,000 in 1996.

Some argue that such a large force is no longer needed—Nepal's huge neighbours, India and China, are both friendly. Manpower could be diverted to rebuilding one of the world's poorest countries. One retired general insists that former rebels should be offered practical alternatives to the army, such as vocational training, education or jobs in the police.

The Maoists' leader, Pushpa Kamal Dahal, known as "Prachanda", has said that "democratising" the forces will be a priority for the coalition government he is poised to lead. However, he has not given up his post as commander of Maoist forces since entering mainstream politics. And the Maoists' feared youth wing, the Young Communist League, continues to tax his credibility with its thuggery. All this, and the abduction and killing of Ram Shrestha, a Kathmandu-based businessman, who was beaten to death last month inside a cantonment by Maoist cadres, has put Prachanda on the defensive.

The UN, too, has faced its share of criticism, but overall can claim its mission in Nepal as a success. It is due to end in July. That has raised concerns that a loss of international interest and of the UN's expertise in healing war-torn states may stall an integration process that has yet to start.

## Myanmar after the cyclone

### Crony charity

Jun 19th 2008 | BANGKOK  
From The Economist print edition

#### Big business to the rescue?

[Get article background](#)

BUSINESSES in Myanmar are not famous for their public-spiritedness. But since last month's cyclone, several well-known companies have helped the relief effort. Their role has been vital: the ruling junta has kept most foreign aid agencies on a tight leash. Fewer than 200 visas have been issued to United Nations emergency staff, who must then apply for short-term permits to leave Yangon, the main city.

So some aid agencies have joined forces with well-connected companies. Save the Children and Singapore's Red Cross have both turned to Serge Pun, a businessman whose holdings include Yoma Bank. The aid groups are using Mr Pun's boats and warehouses to channel food, shelter and medicine to stricken communities in the Irrawaddy delta, where at least 2.4m people are estimated to need help. Andrew Kirkwood, country director of Save the Children, says he is "absolutely comfortable" with his relationship with Mr Pun, whom one Western diplomat calls "the best of the lot" of Myanmar's big businessmen.

More disquieting for foreign donors is the government's favouring of its business cronies with contracts to rebuild flattened towns and villages. In recent years America and others have slapped financial sanctions on some of these tycoons (not including Mr Pun) in order to squeeze the junta. This could complicate donor-financed reconstruction efforts. The junta has asked for nearly \$11 billion in long-term assistance. An international assessment team is due to report on June 24th. But any aid for the junta is a hard sell after its brutality towards peaceful protesters and obstruction of aid workers. Opaque sweetheart deals for blacklisted cronies hardly help. The UN says it is still short of its target of \$201m for six months' emergency relief.

Yet private business may offer the best hope of getting aid through. One veteran exiled campaigner for tougher sanctions says she is holding her nose and cheering corporate relief efforts—but only during the emergency phase. Reconstruction, she says, is a "different ballgame". Indeed, critics say the conglomerates are already exploiting their role as relief co-ordinators. In Bogale, a hard-hit township in the delta, villagers promised replacements for tin roofs lost in the storm were asked to pay for them, says Win Min, an exiled Burmese scholar with family in the area.

The company in question, Htoo Trading, is owned by Tay Za, a young entrepreneur in the inner circle of General Than Shwe, Myanmar's supreme leader. His other holdings include Air Bagan, a private carrier, whose fleet of aircraft was reportedly moved on the eve of the cyclone to Mandalay, out of the storm's path. Myanmar's rulers, however, did not bother to warn ordinary Burmese of the approaching disaster.



## Zimbabwe

**No sign of an end to the horror**

Jun 19th 2008 | HARARE AND JOHANNESBURG  
From The Economist print edition



**Robert Mugabe seems determined to steal the presidential run-off but Africa may be slowly turning against him and talk of a unity government has intensified**

AS ZIMBABWEANS prepare to vote in a second and final round to elect a president on June 27th, the chances of an early and peaceful end to the country's misery look remote. Following the first round on March 29th, which even President Robert Mugabe and his officials had to admit was won by the opposition Movement for Democratic Change (MDC), the regime is inflicting a shocking wave of violence against its own citizens. Though Morgan Tsvangirai, the MDC candidate, sounds buoyant about his chances, it is hard to see how he will be allowed to win.

In an orchestrated campaign of intimidation, pro-government militias, backed by the army, are doing all they can to make sure Mr Mugabe keeps his job. According to the MDC, at least 65 of their people have been killed, and thousands tortured and forced to flee their homes. Earlier this month, Human Rights Watch, a New York-based group, documented a systematic campaign of violence, torture and intimidation against civic organisations, lawyers and journalists, as well as the MDC.

Malcolm (not his real name), a teacher who runs a rural school near Chivhu, a small town south of Harare, the capital, in the ruling party's one-time stronghold of Mashonaland East, considers himself lucky. Like many of his colleagues, he was a polling officer in the first round. A few weeks ago, a group of youth militia from the ruling ZANU-PF marched into his house and accused him of telling people to vote for the opposition. He managed to fend them off, with the help of the police, but lives in fear and no longer leaves his house without an axe.

Some of his colleagues were not as lucky. When pro-government militias visited a nearby school, they burnt houses to the ground. Teachers struggled to rescue their children from the flames and were severely beaten. Malcolm says they went to the police, who arrested the culprits but freed them after pressure from the ruling party. The school remains closed.

The pattern is being repeated across the country. Patience and her husband, who were also accused of supporting the MDC, were left for dead in Mtoko, north-east of Harare, after their home was ransacked and burnt down. She was in hospital for two weeks. Her husband's right arm was broken, his body serrated by burns and beatings. "They used whips with metal ends on both of us," says Patience.

Cities have not been spared either. In the poorer suburbs of Harare, which are strongly pro-MDC, militias patrol the streets, harassing anyone who fails to display ruling-party T-shirts or scarves. In Mbare, one of

the largest of Harare's poor districts, people are being forced to attend night vigils; suspected opposition backers have been badly beaten up.

It has become increasingly hard for opposition leaders to campaign normally. Mr Tsvangirai has been repeatedly detained without charge. The MDC reports that vehicles used for campaigning have been seized. Arthur Mutambara, the leader of an MDC splinter that is now backing the main opposition again, was put behind bars for writing an editorial against Mr Mugabe; he is now out on bail. The MDC's secretary-general, Tendai Biti, has been in prison since his arrest at Harare airport after coming back from South Africa earlier this month. The police have accused him of treason, a capital offence, though he has yet to be charged. Human-rights lawyers and magistrates have also been targeted; several have fled the country, fearing for their lives.

Areas where the ruling party's grip has slipped have become hard to get to: roadblocks control people's movements and even foreign diplomats have been stopped and threatened. The government ordered international aid agencies, which it accuses of working for the opposition, to stop most of their work.

Though African observers have strengthened their presence, the few hundred on the ground will struggle to cover the 9,231 polling stations peppered around the country. Western and UN observers have not been allowed in. The Zimbabwe Election Support Network, an independent local outfit that deployed some 8,000 observers in the first round, is still waiting to get accredited to monitor the run-off. Its members have been hunted down and beaten.

The repression has steeled some people's resolve. "Of course I will vote," says Malcolm, the rural teacher. In Harare's pro-opposition suburbs, many are pumped up. "I'll be waking up at 4am to go vote," says one. But others are discouraged, having lost faith in the power of elections to bring about change. "What's the point when we all know the result?" asks Kudzai, a young man who has just run away from Mhondoro, 120km (75 miles) from Harare, where the wife of an MDC leader had her hands and feet chopped off before she was burnt alive in her hut.

## **It's up to the neighbours now**

A growing number of prominent Africans are speaking out. Marwick Khumalo, a Swazi who heads the Pan-African Parliament's observer mission, says his team has had reports of horrendous attacks; it was clear, he said, that the poll could not be fair if the violence went on. The leaders of neighbouring Botswana and Zambia are despairing of Mr Mugabe's antics. Tanzania's foreign minister, in a notable breaking of ranks, said there was "every sign that the elections will never be free or fair". Kenya's prime minister, Raila Odinga, has castigated Mr Mugabe. A group of Africa's great and the good, including former UN secretary-general Kofi Annan, two former secretary-generals of the Organisation of African Unity (before it turned into the African Union) and 19 former presidents and prime ministers, has called for a free election and an end to the violence.

The UN has sent an envoy, Haile Menkerios, an Eritrean, while South Africa's President Thabo Mbeki, whom the southern African region had previously mandated to mediate between the MDC and ZANU-PF, has continued his efforts to achieve a negotiated settlement. But in South Africa, too, politicians in the ruling African National Congress, including its new leader, Jacob Zuma, are increasingly reluctant to tolerate Mr Mugabe.

As African opinion turns against him, a frantic round of diplomacy is under way in an effort to head off what some fear may turn into a bloodbath. Some ZANU-PF sources say—but others deny—that a place in a national unity government was offered to the MDC. But the MDC says that democracy should be respected and that the result of the parliamentary contest, which it won by a slim margin, gives it the right to form a government. Moreover, it says, an MDC-led government would include some from the ruling party as well as non-party technocrats.

If the election does go ahead and Mr Mugabe wins, even organisations like the Southern African Development Community, the 14-country regional club that has been loth to criticise Mr Mugabe publicly, may become reluctant to accept his legitimacy. He may also come under stronger pressure from elsewhere in Africa, as well as from the West, to accept that Mr Tsvangirai and the MDC should play a big role, not just a token one (as some ZANU-PF people suggest), if a unity government were formed. That sort of compromise, rather than Mr Tsvangirai in outright command, is what most African governments are betting on. If Mr Mugabe resists indefinitely, some African countries may even start to contemplate economic sanctions—cutting off supplies of electricity, for instance—that could jolt him into giving way.

So Mr Mugabe may hold on for a while. But support for him, in the region as well as at home, could start to ebb away.

## Equatorial Guinea

## A short trial, at last

Jun 19th 2008

From The Economist print edition

## A tale of plots, mercenaries and money in one of Africa's smallest countries

AFP

AN OLD dog-of-war was left licking his wounds this week. Simon Mann, a former member of Britain's Special Air Service, at last went on trial in Equatorial Guinea accused of leading a band of mercenaries in a coup attempt against the country's government in 2004. The farcical plot, involving mysterious planes packed with soldiers of fortune, crates of weapons bought in Zimbabwe en route from South Africa, and a dodgy dictator awash in oil money, could have been lifted from an airport thriller.

Nobody expected Mr Mann to have a fair trial in the tiny west African country. Earlier this year he was spirited from a high-security prison in Zimbabwe to a specially built cell in Malabo, Equatorial Guinea's capital on the island part of the country. His friends say he was kidnapped and deported illegally (via Gabon, says one) after cash was handed over in suitcases to President Robert Mugabe's men. Mr Mann's lawyer, a local man, was stripped of his right to practise in Equatorial Guinea just days before the trial began.



In any case, the bespectacled Briton had already admitted to the plot— **Mann in need of wonga** and said sorry, with a smile—in a television interview from prison earlier this year. He did himself no favours by saying that the president, Obiang Nguema, might have been killed had the plot not been foiled. But he did help Mr Nguema out this week in court by again fingering some alleged co-plotters, including Sir Mark Thatcher, son of Britain's former prime minister, who had already been convicted of mercenary activity in South Africa in the same case. Equatorial Guinea has also issued a warrant for Sir Mark. Mr Mann's friends say his confessions were obtained under duress.

The outcome of the rapid trial, due to end as *The Economist* went to press, is in little doubt. Despite excited talk of execution, Mr Mann probably faces a long spell in jail. Some of his co-accused, convicted four years ago in Malabo, got sentences ranging from two to 24 years. An exiled Equatorial Guinean politician, Severo Moto, who, it is alleged, would have been installed as president if the plotters had succeeded, got a 63-year sentence in absentia. But Mr Mann may hope that, once the fuss has faded, he can persuade Mr Nguema's people to let him go home early. A letter he wrote after his arrest suggested that a "large splodge of wonga" (English schoolboy slang for lots of money) is the usual way out of an African prison.

More used to press reports of misrule, repression and corruption, the government of this speck of a country is enjoying its rare chance to pose as the victim of an international terrorist plot. In power since 1979, Mr Nguema said this week that Equatorial Guinea had turned a page with regard to human rights. He says, too, that he is a popular leader of a democracy. Which must be true, as his party won 99 of 100 seats in a general election last month.

## Saudi Arabia

## The puzzle of oil production

Jun 19th 2008 | CAIRO

From The Economist print edition

### Why the Saudis are worried about the high price of crude

WITH oil prices nudging \$140 a barrel, Saudi Arabia stands to receive a windfall this year of up to \$400 billion, double what it earned from selling oil last year. Gloom at the world's petrol pumps, it may be assumed, can only mean hand-rubbing glee for their biggest supplier. Such is the case with some of the kingdom's rivals in the Organisation of the Petroleum Exporting Countries (OPEC), the cartel that supplies over one-third of the world's crude. Iran, for instance, has consistently argued against doing anything to bring down prices. Why, then, have the Saudis mounted a risky bid to do just that, by boosting oil output and summoning the world's top energy officials to an emergency meeting in Jeddah on June 22nd?

The reasons span history, economics and geopolitics. No one in the Saudi oil ministry has forgotten what happened after the oil shock in the 1970s. The Arab boycott called in 1973 to protest against Western backing for Israel tripled oil prices. But it also prompted oil exploration in tricky places such as the North Sea and conservation measures that reduced demand. The result was a long-term slump in crude prices and a drop in the Saudis' market share.

The Saudis fear that the intensified search by the West for alternative energy will result in the same thing happening again. But the more immediate worry is that high oil prices may slow not just America's but the whole world's economy. That would trigger a sharp fall in demand for Saudi oil. Just as bad, a sharp global slowdown would slash the value of the kingdom's hundreds of billions of dollars in overseas holdings. No wonder Ali al-Nuaimi, like his predecessors as Saudi oil minister, often cites "customer satisfaction" and "market stability".

Saudis retain another nasty memory from the 1970s. Branded as gluttons, they became a stock figure of ridicule in Western cartoons. And sudden wealth brought social strains at home that helped create a fundamentalist backlash that produced, among other things, al-Qaeda. The Saudi desire not to be stigmatised for the world's woes, this time, may be gauged by their donation, last month, of a generous \$500m to the UN's World Food Programme.

Today's sky-high oil price carries another political risk. It empowers Iran, the revolutionary Shia state that the conservative Sunni Saudis view as their main rival for regional influence. Even as the world has ratcheted up sanctions to punish Iran for its suspected nuclear ambitions, the Islamic Republic has cashed in the rewards from soaring fuel prices. The tightness of the oil market has become, in effect, a line of defence for Iran, letting its radical leadership hint, truthfully, that any hostile act that may impede the flow of Iranian oil would risk a global economic decline.

So Saudi Arabia's motives for wanting to lower prices are clear. The trouble is that it cannot manipulate markets as before. The kingdom has a fifth of known reserves. It supplies an eighth of the world's oil and remains, crucially, the only producer with at least some spare capacity. A huge investment plan under way should raise its capacity from 11.3m barrels a day in 2007 to 12.5m by next year. Noting pleas from George Bush and Ban Ki-moon, the UN's secretary-general, the Saudis have upped actual production twice in the past month, raising it by 500,000 barrels a day to its present level of 9.5m.

But much of that new output, and most of the reserve capacity, is in the form of heavier oils that are costlier to refine and for which there is less thirst. The Saudis are unlikely to bring new, lighter crude, or bigger refining capacity for their heavier oils, onto world markets until next year. Even then the incremental rise may not offset demand. So energy watchers hope the Jeddah conference will reveal something bolder than promises of more oil.

## Israel and the Palestinians

### Can a ceasefire hold?

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From The Economist print edition

**It is uncertain how long a recently agreed truce may last—or whether it may pave the way towards a wider settlement**

AFTER three months of indirect negotiations via Egyptian mediators, a ceasefire between Israel and Hamas, the Islamist movement that controls the Gaza Strip, went into force early on June 19th. The two sides agreed to start off with three days of calm. If that holds, Israel will begin slightly to ease the economic blockade it imposed a year ago, when Hamas wrested control of the strip from its secular political rival, Fatah. The next phase will be to renew talks on an exchange of Palestinian prisoners (perhaps some 1,400) for an Israeli soldier, Gilad Shalit, who next week will complete two years of captivity in Gaza.

Both sides could benefit from a break. Gazan militants have rained a stream of rockets at Israelis nearby. Most are inaccurate and home-made but have lately included more lethal, longer-range versions smuggled in from Egypt. They have killed a dozen Israelis in eight years, but keep tens of thousands terrified. Israel's attacks on Gaza have been more targeted but far bloodier: they have killed some 370 Gazans this year alone, not all of them gunmen and at least 70 of them children.

Israel has piled on economic pressure, too. The 15 months of sanctions it imposed on the Palestinian Authority following Hamas's victory in a general election in 2006 had already weakened the economy; the blockade on Gaza, during which Israel let in only minimal levels of humanitarian goods and fuel, has ruined it. Most Gazans still blame Israel: Hamas's popularity seems to rise when Gaza is most under attack. But the combined military and economic pressure no doubt played a part in Hamas's decision to call a truce.

In any event, the ceasefire is fragile, not least because both Hamas and the Israelis have doubts about its benefits. The big push came from Egypt, which took on the mediator's role after particularly fierce fighting earlier this year. Since Hamas blew down Gaza's southern wall in January, letting Palestinians flood into Egypt for a few days, the government in Cairo has worried that increasing Israeli pressure could again dump Gaza's problems on Egypt's lap.

So various things could end the ceasefire. Though other militant groups in Gaza hint that they would respect it, some may try to spoil it. Among them are members of Fatah, Hamas's secular rival, which is still smarting at Hamas's takeover a year ago. Since Israel and Hamas refuse direct contact, the channel for resolving disagreements or dampening sudden flare-ups—ie, Egypt—will be slow at best.

Moreover, keeping up the ceasefire will require progress that both sides are uneasy about. Hamas wants Israel to lift its economic siege and ultimately extend the ceasefire to the West Bank. But Israel's ultimate goal is still to weaken Hamas in favour of Fatah. It is holding talks with Fatah's leader, Mahmoud Abbas, the Palestinian president, who runs the West Bank; anything that gives Hamas respite may undermine these talks. Fatah itself has been making noises about reconciliation with Hamas in the past few days, but for that very reason would rather see the Islamists weakened, so that it gets the best terms for a rapprochement.

Israel, for its part, wants Hamas to reduce the smuggling of weapons through tunnels under Gaza's border with Egypt. But Hamas considers the arms essential to beefing itself up against a possible Israeli military incursion, and Egypt has been unable (or, grumble the Israelis, has not tried hard enough) to stem the traffic itself.

In short, the ceasefire is likely to last only as long as neither side feels it is helping the other side too much. And if it collapses? Israeli leaders were sounding ever-more belligerent before the ceasefire; a massive incursion to strike a mortal blow at Hamas was a matter of time. A security official says that the differences of opinion in the defence establishment on such an operation are now merely "tactical".

Yet there is an element of bravado in all this, no doubt fuelled by the fact that Israeli politicians are scenting early elections in the wake of the latest corruption scandal to engulf Ehud Olmert, the prime minister. A full-scale incursion against Hamas's estimated force of 15,000-20,000 armed and well-trained men could cost a lot of Israeli soldiers' lives, more than have ever been killed by the rockets, to say nothing of the hundreds of Palestinians who would undoubtedly die, bringing international condemnation on Israel and destroying the peace process with Mr Abbas. It would be hard for Israelis to argue for a military onslaught without either an extreme provocation or a guaranteed result.

So a ceasefire gives both Mr Olmert and Ehud Barak, his defence minister and political rival, who last month issued an ultimatum to Mr Olmert to step down or face early elections, some welcome space. Mr Olmert will also benefit if reports come true of an imminent prisoner swap with Lebanon's Hizbullah, which captured two Israeli soldiers and sparked a five-week-long war with Israel two years ago.

But ultimately the biggest winner may be a rival to both of them: Binyamin Netanyahu, the leader of the opposition Likud party, who currently leads in the polls. If there is heavy fighting, voters may still return to the battle-tested Mr Barak, a former army chief. If the ceasefire holds, Mr Netanyahu could reap the rewards.



## Iraqi Kurdistan

## Music and mountains

Jun 19th 2008 | ERBIL  
From The Economist print edition

## Can the Kurds offer a tourist haven?

FOR the Kurds of Iraq, Zakaria Abdulla is the nearest thing to the Beatles, rolled into one man. He claims that one of his more recent albums, "Telinaz", meaning "lovely", has sold more than 3m copies across the region and in Europe. But mere musical success is no longer enough. These days he has a political vision—and a business nose to match.

As a budding property magnate, he is the driving force behind Naz City, a burgeoning housing development on the edge of Erbil, the Iraqi Kurds' capital, with some 700 Western-style flats designed to "bring something beautiful to Kurdistan". Such projects, he hopes, may lure back some of the thousands of professionals who fled from Saddam Hussein and are now used to European and American living standards; Mr Abdulla spent some years in Sweden. So far, he says, seven ministers in the Kurdish regional government, more than 100 assembly members and at least 50 academics have taken flats in Naz City.

Mr Abdulla's cosy relations with the Kurdish Democratic Party (KDP), one of the two main ones in the region, have helped him along. The prime minister, Nechirvan Barzani, a KDP man, has arranged for several of his leading officials to take flats there. Mr Abdulla says he is also planning to build a "medical city".

Other housing developments include an "English village", an "Italian village" and "Dream City", all meant to lure back investors and professional Kurds. Last week the Kurdish prime minister signed a deal with the United Arab Emirates said to be worth \$4.5 billion to build a hotel, shops and resort complex in Erbil.

With its peaceful gardens, tennis courts and swimming pools, Naz City is a far cry from battered Baghdad and other cities in the non-Kurdish parts of Iraq. The only hint of nearby strife is the heavy presence of watchful security guards. The Kurdish government loves to stress the difference between the quiet Kurdish north and the rest of Iraq: this week the most lethal bomb in months killed at least 63 Baghdadis.

The regional government has also launched a campaign to tout Iraqi Kurdistan as a tourist destination, describing it as "the Other Iraq". The Pank Resort near Sulaymaniyah, the region's second city, is popular with locals—as is its mountainside roller coaster. Farther north, a spring day at the waterfalls near Rawanduz, another resort, draws hundreds of visitors to picnic at the water's edge. Most of them are Kurds. But the government thinks that Kurdistan's lush mountains, peaceful cities and easy-going attitude to alcohol should attract Westerners and Gulf Arabs too.



## The European Union

## Ireland's voters speak

Jun 19th 2008 | LUXEMBOURG  
From The Economist print edition

AFP



## But will anybody listen to them?

BEWARE a politician who stresses how much he “respects” a decision by voters. In support of this warning, consider the Irish rejection of the European Union's Lisbon treaty in a referendum on June 12th. As soon as the result was known EU leaders issued pompous statements of their due respect for this decision by the Irish people. Yet in the next breath they called for other countries to carry on ratifying the treaty as if the news from Dublin meant nothing. And the Irish prime minister, Brian Cowen, was called to explain to his fellow leaders at a Brussels summit on June 19th and 20th how Ireland might begin to fix the mess it has created.

Legally, the talk of pushing ahead with Lisbon seems odd. Like any EU treaty, it must be ratified by all members before it can come into force. And Ireland, a member of 35 years' standing, has said no in a legally binding, democratic vote. Moreover Lisbon makes no sense without unanimous support. It is not something like the single currency, or the Schengen passport-free zone, which some countries can opt out of. It is a set of changes to the rule-book for all members. It creates a full-time president to represent EU governments and a single foreign-policy chief to speak for Europe. It sweeps away national vetoes in areas such as cross-border policing and immigration. It changes members' voting weights. And it hands the European Parliament a raft of new powers.

In Europe, it seems, a no vote by millions of voters is not a binding rejection, but a hurdle to be jumped with some political arm-twisting and clever drafting. After all, Ireland has been through this before: its voters rejected the Nice treaty in 2001, only to be invited to vote again the following year (when they succumbed and said yes). The same treatment was meted out to the Danes when they rejected the Maastricht treaty in 1992.

In the early days after the Irish vote, heads of government and ministers from several countries declared that Ireland could not be permitted to halt the adoption of Lisbon by the 26 other countries. Germany's foreign minister, Frank-Walter Steinmeier, suggested that “Ireland could exit the integration process for a time”, to let the 26 go ahead with Lisbon. French and Spanish ministers suggested that new “legal arrangements” might be needed to allow Ireland to stay in the EU. The Italian president, Giorgio Napolitano, said the “courageous choice” was a two-speed Europe, with laggards left behind. The German interior minister, Wolfgang Schäuble, grumbled over “letting a few million Irish make decisions for 495m Europeans”.

But those 495m Europeans were not given a vote. Only Ireland held a referendum on this treaty. Indeed, Lisbon was explicitly designed to be ratified by national parliaments, and to avoid referendums. That is because it was already plan B—an unreadable mish-mash of articles salvaged from the failed EU constitutional treaty that was rejected by French and Dutch voters in 2005. Unfortunately for this strategy, Ireland was obliged by its own constitution to hold a referendum.

By the time European foreign ministers met in Luxembourg four days after the Irish vote, the thuggery had been toned down. Several ministers spoke against a two-speed Europe. Denmark's Per Stig Møller reminded his colleagues that, if they had held referendums, they might have ended up in Ireland's position. "We are all Irish," chimed in the French foreign minister, Bernard Kouchner, perhaps to atone for a gaffe just before the referendum, when he said that the Irish would be the first to suffer if they voted no. On visits to eastern and central Europe, the German chancellor, Angela Merkel, and the French president, Nicolas Sarkozy, both argued against a two-speed Europe.

It would be nice to think that EU leaders were suffering an attack of democratic conscience. More likely, they realised they might dent their hopes of getting Lisbon ratified by the other 26, leaving Ireland isolated. Seven countries have yet to do it. The Czechs have parked Lisbon for consideration by their constitutional court until November or December. The Polish government is keen on Lisbon, but the country's more sceptical president, Lech Kaczyński, is dithering about signing it.

In Britain, the opposition Tories demanded a halt to ratification. Yet the Labour government insisted on pressing ahead this week. EU leaders heaped praise on Britain for this vote of confidence in Europe. It was no such thing. The British strategy is to stay out of the fight, knowing that the two-speed Europe camp would love to push Britain into the dunce's corner with Ireland and try to marginalise both.

In response to Ireland's no, three options are being considered: renegotiate Lisbon, ditch it, or force the Irish to vote again. There is no appetite anywhere for a renegotiation. The Lisbon text reflects years of wrangling: going back to the drawing-board would be politically "too painful", says a senior official. This may prove a shock to Irish voters. The European Commission organised an instant poll after the referendum, in which three-quarters of no voters said they thought the text could be renegotiated by the government, as leading no campaigners had told them.

Ditching the treaty is not much more popular. It is a messy compromise of a text, privately disliked by several countries, and feared by the commission as a threat to the present institutional balance. Yet with the single exception of the Czech president, Václav Klaus, no leader has dared to state that the Lisbon treaty is now dead.

As a result, the talk in Luxembourg focused on the third option: putting essentially the same treaty to voters a second time, ideally early next year. Changing the text is not possible, as that would force every other country to ratify the whole thing again. Instead a few fringe concessions are being floated. These include a political deal to allow every member to keep its own commissioner. Lisbon would reduce the size of the commission after 2014, guaranteeing Ireland (and other countries) a commissioner for only ten years out of every 15. The loss of a commissioner became a symbol of lost influence during the referendum campaign. But a loophole in the text allows this to be reversed. To deal with other arguments on the no side, various explanatory protocols could reiterate that the treaty does not threaten Ireland's military neutrality, its abortion laws or its right to set low corporate-tax rates.

All this plotting makes a big assumption: that a second Irish vote would produce a yes. Yet the no camp won by a seven-point margin, on a respectable 53% turnout. Twisting Ireland's arm might reverse that, but it could just as easily lead to another no vote. Could Europe survive a fourth treaty rejection in as many years? It is a risk EU leaders may want to take time to ponder, with cooler heads.

## The Irish prime minister

## A taoiseach in trouble

Jun 19th 2008 | DUBLIN

From The Economist print edition

## A glum result for Ireland's newish leader

AFTER just five weeks as Ireland's prime minister, Brian Cowen has suffered a double defeat. In rejecting the Lisbon treaty so decisively, voters have also repudiated his government and abruptly ended his short political honeymoon. He must now tackle two large problems from a weakened position. A once-booming economy is slowing sharply: a property bust has cut growth, raised unemployment, depressed tax revenues and pushed the budget deficit close to the euro-area limit of 3% of GDP. And Mr Cowen faces several nerve-wracking months of uncertain negotiations over Ireland's position in the European Union.

Before the referendum, a former European commissioner from Ireland, Peter Sutherland, declared that rejection of the Lisbon treaty would be the most damaging foreign-policy decision ever taken by his country. Yet a majority of 53% still voted no. The anti-treaty campaign, spearheaded by Sinn Féin, the IRA's political wing, and backed by lobby groups from the far left to the religious right, was marked by false claims and exaggerated fears over the treaty. But the yes side failed to nail these.

Ireland's no to Lisbon cannot be blamed on the unpopularity of the EU itself. In the latest Eurobarometer poll more people in Ireland (87%) than in any other EU country said their country had benefited from membership. Since it joined in 1973, Ireland has received twice as much from the EU budget as it has paid in—a net transfer worth as much as €10,000 (\$15,000) per person. Yet twice in seven years, the Irish voters have turned down EU treaties. They rejected the Nice treaty in 2001 before approving it in a second referendum a year later.

For Mr Cowen, the vote was a case of history repeating itself. The government lost because it failed to learn from mistakes made in the Nice referendum. At last year's election, pro-Lisbon political parties won 82% of the vote; yet on June 12th, the yes side won only 47%. The government's campaign was too complacent, too short and too error-prone. Both Mr Cowen and the Irish commissioner, Charlie McCreevy, admitted to not reading the treaty in detail. Voters too struggled to comprehend the treaty, making them receptive to the argument that nobody should sign a contract they do not understand. It is by no means certain that they can be persuaded to change their minds in a year or so's time.



AFP

**Cowen welcomes the voters' verdict**

## France's defence review

## Let's get real

Jun 19th 2008 | PARIS  
From The Economist print edition

## Seeking smaller, sharper defences

"MAKE no mistake," declared President Nicolas Sarkozy on June 17th, as he unveiled the results of France's first full defence review for 14 years, "national and European territory could be struck tomorrow...we cannot rule out the reappearance of a major threat, whatever its nature, that would put the very survival of the nation in peril."

AFP



**Allons, enfants—to the chop**

The president's speech, delivered in front of 3,000 French officers, laid out bluntly his response to today's security and terrorist risks. France will invest heavily in modernising the armed forces' equipment, including a new space programme, at the price of reducing its headcount. It is time, he urged, to stop measuring a country's military might by its manpower alone. French soldiers may be numerous, but they struggle with 45-year-old refuelling aircraft, 28-year-old armoured vehicles, 30-year-old helicopters and a fleet of tanks of which as few as 50% are actually in working order.

Out of 320,000 defence posts, civilian and military, 54,000 will go. All savings will go towards upgrading military hardware, at a cost of €200 billion (\$300 billion) between now and 2020—although a decision on whether to build a second aircraft-carrier has been postponed. Defence spending will increase by one percentage point above inflation from 2012. In time, the result should be a leaner, smarter, sharper army, better equipped to respond to "globalised risks", including terrorism and cyber-attacks.

The defence review was carried out by a commission of experts and political types who sat for nearly a year and held around 40 public hearings. The white paper they produced defines France's first formal "national security strategy", to be overseen by a new national security council. Three novelties stand out.

First is a shift of focus from France's old historic spheres towards a "strategic arc" of instability that stretches from the Atlantic via the Mediterranean to the Persian Gulf and Horn of Africa and on to south Asia. France will close one of its two permanent military bases in sub-Saharan Africa, both of them in ex-colonies. However, it will keep its base in Djibouti, and invest in a new base in Abu Dhabi, its first in the Gulf and in a country with which it has no colonial links.

At the same time, the white paper puts greater emphasis on intelligence, both high-tech and human. Yearly spending on satellite technology, including spy satellites and electromagnetic surveillance, will double. France will launch a system of ballistic-missile early-warning satellites, starting later this year, to be fully operational by 2020. There will also be a new national intelligence co-ordinator, answering to the president.

Third, the white paper approves France's reintegration into NATO's military command structure, which Charles de Gaulle pulled out of in 1966. In his speech, Mr Sarkozy made it plain that France's return will take place only in parallel with progress on European defence—and that France will retain its independent nuclear *force de frappe*. One obstacle to more joint European defence—American objections to a potential rival to NATO—has been removed. Mr Sarkozy said this week that, despite the uncertainty after the Irish no to the Lisbon treaty, he wants to press ahead on defence during the six-month French presidency of the European Union, which starts on July 1st.

Ideally, the French would like the EU to be able to send 60,000 troops into operation for a year. They want a separate military-planning structure to run such operations. This would involve pooling resources on an ad hoc basis, not the creation of a European super-army. "The white paper certainly does not say that we want to establish a joint navy or standing force," says François Heisbourg, director of the Foundation for Strategic Research and a commission member. "It's about sharing assets when requested, not handing over authority to a third-party command."

Many elements in Mr Sarkozy's plan will be contested. Over 450 communes across France have a defence base; at least 30 may close. Over 250 mayors or deputies have already turned up at the defence ministry to protest. It is also unclear how far European defence co-operation can get when EU leaders are distracted by institutional troubles; and the British dislike anything with the whiff of a permanent EU defence-planning capability.

As for France's full return to NATO, the left and Gaullists alike have seized on this as a threat to French independence. Patricia Adam, a Socialist deputy who resigned from the defence-review commission, denounced the white paper as a "very Bush-like vision, very American". With another 700 French soldiers soon to join NATO forces in eastern Afghanistan, the reality of deeper French commitment to NATO may not yet have fully hit home.

## Italy's prime minister and the law

## The fruits of office

Jun 19th 2008 | ROME  
From The Economist print edition

## The government drafts new laws to constrain the magistracy

SILVIO BERLUSCONI is a man of perseverance. Two months after winning the Italian election, he is starting to deal with the judicial system, and those working in it, as robustly as when he was last in power, in 2001-06. During the campaign he said prosecutors should undergo checks on their mental health. Now more attacks on the magistracy and bespoke laws to protect himself and his business interests seem to be priorities once again.

On June 17th Renato Schifani, speaker of the Senate, read a letter from Mr Berlusconi backing an amendment proposed by two senators that would stop for a year all trials for crimes committed before June 2002, except for those the government deems most serious. Some critics say this is unconstitutional, as it interferes with the requirement that trials should be of reasonable duration and that due legal process must be observed. Mr Berlusconi is on trial in Milan accused of judicial corruption, along with a British lawyer who helped to establish a secret offshore network of companies for Mr Berlusconi's business empire. Now nearing its end, this trial would be among those to be halted. The amendment was passed by the Senate on June 18th.

In his letter, Mr Berlusconi claimed that many cases have been brought against him by extreme left-wing magistrates for political ends. He has also told Mr Schifani that he wants legislation to suspend trials involving the holders of Italy's highest offices of state. Mr Schifani was behind a similar law in 2003 that was later ruled unconstitutional.

Mr Berlusconi's intrusions into the criminal-justice system are also hitting the use of intercepts in investigations. On June 13th the government approved a bill to limit what magistrates can do and the media may report. Cases for which eavesdropping would be banned include fraudulent bankruptcy, market abuse and insider trading. The government claims that cases involving organised crime and terrorism will not be affected. But Armando Spataro, a prosecutor in Milan, says limits on the use of interception devices could hinder investigations into terrorism. And Franco Roberti, an anti-Mafia magistrate in Naples, notes that many investigations into organised crime begin with ordinary crimes such as extortion, loan-sharking and contraband, for which listening-in will be forbidden.

The bill would also gag the magistracy and the press, threatening imprisonment to prosecutors who talk about cases and journalists whose articles use information gleaned from investigations. A new plan to get thousands of soldiers to act as policemen in such cities as Bologna, Trieste and Venice appears to be a smokescreen for the government's real approach to crime: hard on some offences, but soft on others. Behind the smokescreen, Mr Berlusconi is gathering the fruits of office again.



Reuters

**I'm all right, says Berlusconi**



## The western Balkans

### A June tide

Jun 19th 2008 | BELGRADE AND SARAJEVO  
From The Economist print edition

### A big month for the Balkans



THIS month may well go down in history as a momentous one for the Balkans. Almost six weeks after Serbia's election, there is as yet no government—but insiders expect one to be formed within weeks. In Kosovo, which declared its independence from Serbia in February, the defiant Serb minority has greeted a new constitution by saying that it will set up its own assembly. Bosnia has meanwhile signed a belated agreement with the European Union that should set it on the path to eventual membership.

In Serbia's election the pro-European party of President Boris Tadic did better than expected, but it was left needing support from the Socialists, the party of Slobodan Milosevic, the dictator who plunged former Yugoslavia into war in the 1990s. A deal is not quite in the bag, but if some minor charges against Milosevic's widow, who is currently in exile in Moscow, happen to be dropped, it is expected to be done within a week or two.

Serbia needs a government most urgently to make decisions about Kosovo. And the outlines of just what that new government might do are now emerging.

Some 90% of Kosovo's 2m people are ethnic Albanians. Since it declared independence it has been recognised by 43 countries, including America and 20 of the 27 EU members. Russia has been loudly against. Spain, China and others have been less vocal, but just as uncomfortable. At the end of the Kosovo war in 1999 a UN resolution placed the province under its jurisdiction. Kosovo's new constitution, which came into force on June 15th, gives the UN no role, but its government has accepted an EU mission called EULEX.

Brussels had assumed that the UN would hand over its prerogatives in Kosovo to EULEX. But under pressure from Russia, Ban Ki-moon, its secretary-general, has not formally done so. Instead, he at last announced on June 12th that he intended to "reconfigure" the UN presence in Kosovo, adding that he would seek an "enhanced role" for the EU. Since there is no agreement on this, confusion reigns—though EULEX is gradually deploying around the country, if not yet in Serb areas.

Vuk Jeremic, Serbia's foreign minister, promises that "a lot of people will be surprised that the new Serbian government will want to be part of the solution, not part of the problem." He will not say exactly

what the government plans to do. But to speed up its EU integration process, which he says is an absolute must, it clearly has to find a way of putting Kosovo aside as a potential source of conflict.

The government could adopt a two-pronged approach. It may seek a new UN Security Council resolution to give formal authority to the EU in Kosovo, but also ask the UN General Assembly to request an advisory opinion from the International Court of Justice (ICJ) on the legality of Kosovo's declaration of independence. The government could then say that the matter is in the hands of slow-moving lawyers, so should no longer be an issue in domestic politics or with the EU.

Making this happen may be easier said than done. "Will embarrassing 20 EU countries with this ICJ opinion really speed Serbia's way to the EU?" asks one diplomat. "I don't think so." Kosovo's independence is irreversible. But the EU, like Serbia, needs to find a way to deploy its mission there legally.

On June 16th Bosnia signed a stabilisation agreement with the EU, the first step towards membership. It is an achievement because it marks the end of a long period of political stalemate in the country, which is divided into the Croat-Bosniak federation and Republika Srpska. "From deep crisis," says Miroslav Lajcak, who is in effect the governor-general, "we have gone to European euphoria." Everyone seems to be happy with the agreement, though some are less euphoric than others. "We will be the last country in the region to join the EU," says Damir Uzunovic, a Sarajevo publisher, "because they can't do anything else with us."



Jonathan Carr

## German talk

Jun 19th 2008

From The Economist print edition

### From a Briton

IGNORANCE and hysteria too often characterise coverage of Germany in the foreign, and especially the British, press. Jonathan Carr, who from the mid-1970s to the late 1990s served as Bonn correspondent for the *Financial Times* and then *The Economist* (and who died on June 12th, aged 66), brought knowledge and reason to the job. A friend of Germany—and a biographer of Helmut Schmidt, the Wagner clan and an Austrian, Gustav Mahler—he was also a fair-minded critic.

That made him an ideal interpreter of the drama of German unification. “The word ‘Gorbymania’ was suddenly a euphemism,” he wrote of ordinary Germans’ reaction to the visiting Mikhail Gorbachev in June 1989. “This was ‘Gorbasm’.” And he saw what was coming, if not its precise timing. In September 1989 he imagined what a united Germany would be like. And the headline on his survey of West Germany two weeks before the fall of the Berlin Wall was, prophetically, “When the wall comes down”. This newspaper, and its readers, were lucky to have the right man in the right country at the right time.

## Poland's politics

## Looking nice but doing nothing

Jun 19th 2008 | WARSAW  
From The Economist print edition

## Is one of the best governments in Poland's history good enough?

A PREDECESSOR which outsiders regarded as rude, silly and incompetent is always a bonus. But the Polish government headed by Donald Tusk has two other big advantages: a booming economy and a lack of serious opposition. So despite its rather scanty record, the ruling coalition is popular at home and abroad.

Mr Tusk's Civic Platform party defeated its centre-right rival, Law and Justice, in a tight election last October. The outgoing prime minister, Jaroslaw Kaczynski, led a government bent on destroying the cosy deals between business and bureaucracy that took root in Poland after the collapse of communism in 1989. But it became preoccupied by bizarre intrigues over intelligence. It was spectacularly incompetent in foreign policy, picking pointless fights with Germany. Its efforts to fight corruption and reform the judicial system led to abuses of power, not cleaner government. It failed to reform public services or modernise creaking infrastructure.

It is not hard for Mr Tusk's government to look good in contrast. It has done best in foreign policy, thanks largely to a competent foreign minister, Radek Sikorski. Shifting from his hawkish anti-Kremlin past, he has charmed both Russia and Germany. He has forged a strong alliance with Poland's northern neighbour, Sweden, launching a joint plan for a new eastern partnership for the European Union.

Mr Sikorski has also been playing high-stakes poker with America, demanding money for military modernisation, and high-tech defences for Warsaw, in return for hosting a missile-defence base. Some in Washington think that having such a vital base on Polish soil should be honour enough. If Poland can strike a deal with Condoleezza Rice, America's secretary of state, when she visits Warsaw shortly, Mr Sikorski will be riding high. Some call him a future president. His bargaining position is strong: missile defence is unpopular with voters. Lithuania is eager to step into the breach if the Poles refuse the base, but Poland is the Americans' first choice.

The government's other success is a parliamentary commission to promote deregulation. Every Polish government has tried to scrape clean a barnacled bureaucracy, with a signal lack of success. Mr Tusk's brainwave was to hand the issue not to a special ministry (easily nobbled by Poland's change-resistant civil servants) but to lawmakers. Headed by the exuberant Janusz Palikot, the commission launched a public competition to identify the stupidest rules—eg, the requirement that most businesses handling cash must keep receipts in paper form for five years. As these are printed on thermal paper, they fade unless kept cold. That, and other sillinesses, should go next year. It is a small start, but hugely welcome.

On other fronts, the government's record is weaker. It nibbles at problems, sometimes usefully, more often ineffectually. It exudes an atmosphere of mild chaos, coupled with an unhealthy appetite for the spoils of power. Mr Tusk is charming and decent but not decisive. He has yet to be tested by a big crisis.

To be fair, the government faces one huge constraint: Law and Justice's Lech Kaczynski, twin brother of the former prime minister, who will be president until 2010. The opposition has enough votes to deprive the government of the majority it needs to override a presidential veto. One of Mr Tusk's aims seems to be to win the presidency later, rather than take any bold action in government now.

That may be politically astute, but it risks wasting valuable time. The congested and clapped-out road and rail networks cause problems not only for Poland but also for its neighbours. A combination of obsolescent power stations and tough EU rules on carbon emissions threatens huge rises in the cost of electricity. In 2012 Poland will co-host the next Euro football tournament with Ukraine, requiring huge investment in new roads and stadiums, which are badly behind schedule. Wasteful public spending subsidises an army of bogus welfare claimants. The economic outlook is less bright than it was. The sun is shining today, but such problems seem sure to cloud Mr Tusk's future.



## Poland, Russia and history

# Dead leaves in the wind

Jun 19th 2008 | WARSAW  
From The Economist print edition

### Russia inches towards reconciliation with Poland over the Katyn massacre

FEW things symbolised the Soviet attitude to truth more than the Katyn massacre: having shot 20,000 Polish officers in cold blood, the Kremlin then blamed it on the Nazis. And few things symbolise better modern Russia's lingering clinch with the Soviet past than the failure by relatives of the victims to get justice from the Russian legal system.

Last month a court in Moscow rejected a request to hear a case on two issues: the declassification of documents about Katyn and the judicial rehabilitation of the victims. That was shocking (imagine a German court telling Holocaust survivors that Auschwitz files were a military secret). But the Katyn relatives want to take their case to the European Court of Human Rights in Strasbourg, and for that other legal avenues must be exhausted first.

Last week, however, an appeal court overturned the lower court's ruling and ordered it to hear the case. Other signals coming from the top, including an interview given to a Polish newspaper by an adviser to former President Vladimir Putin who called Katyn a "political crime", suggest that the Russians are changing their attitude. One risk for them is a defeat at Strasbourg. Another is the effect on public opinion of a new film, "Katyn", by Andrzej Wajda, Poland's best-known director, that is filling cinemas in the West and in Russia.

Yet the signals remain mixed. Plenty of Russians still argue that Katyn has been exaggerated by the Poles. Some mainstream media have resurrected Soviet-era falsifications. In Russia's ally, Belarus, the defence ministry's magazine says that the whole thing is a slanderous plot to defame the heroic anti-fascist struggle. Another Moscow court recently brushed aside an attempt by Memorial, a Russian human-rights group, to declassify the Katyn files.

The relatives pursuing cases over Katyn insist that they do not want financial compensation from the Russians. "It is about honour and justice," says Ireneusz Kaminski, a Cracow law professor who has masterminded their campaign. If Russia's new leadership wants to distance itself from the revisionist Soviet nostalgia of recent times, coming clean about Katyn would be a good start.

Charlemagne

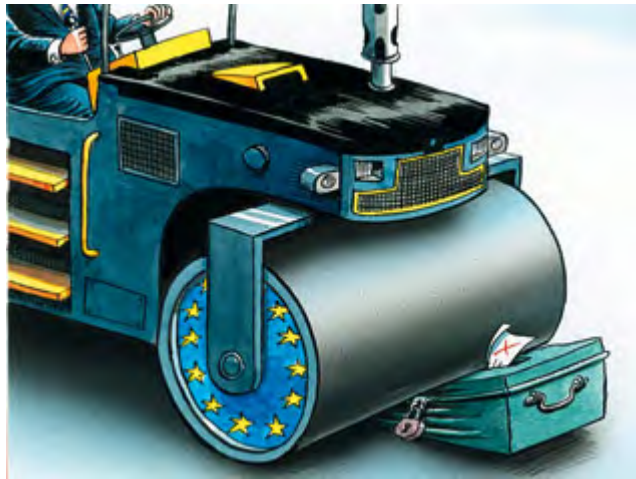
## Democracy in Europe

Jun 19th 2008

From The Economist print edition

### How Europe's leaders respond when voters give the wrong answer

Illustration by Peter Schrank



EMERGING unsteadily from a Dublin polling station on June 12th, the grey-haired man said that he had voted against the European Union's Lisbon treaty because he knew "nothing" about it. "I haven't a clue," he added, speaking with a drunk's slow precision. Moments earlier, an old woman explained her "no" vote by murmuring that "we want to keep ourselves here."

There was a fair amount of this in a day spent outside polling stations. The treaty was "a lot of crap", said three young women in Ringsend, a dockside area. "If we voted yes, it'd mean abortions, and being called up to a European army," said one, repeating two of the more effective fibs about Lisbon spun by the no camp. The treaty would mean "homosexuality and different things", said an intense, bearded young man.

None of this would surprise the diplomats, politicians and Eurocrats who inhabit the EU's corridors of power. Long before the blow of the Irish no, they were inveighing against the folly of putting complex treaties to ordinary voters. Much safer, they say, to leave ratification to national parliaments, as the other 26 EU countries have chosen to do.

In truth, the Irish referendum was not a good advertisement for direct democracy. The commonest reason for saying no was that people did not have enough information about Lisbon, and so felt safer voting no. That is a hard complaint to sustain. In fact Irish voters were bombarded with information, including government-financed leaflets through every door explaining the treaty's main effects. The political establishment united behind Lisbon, filling the airwaves with talking-points.

Some voters who did understand the main provisions of Lisbon treated it like a Rorschach inkblot, using the referendum to vent their broader frustrations about Europe, Ireland and how they were ruled. In poorer districts, people grumbled that Lisbon did "nothing for workers" (some adding quietly that the EU has flooded Ireland with immigrants from eastern Europe). Political leaders were asking voters to believe them when they said the treaty was a good thing, others complained. With the economy sliding and top politicians mired in corruption allegations, who could trust that lot?

All this might comfort EU politicians, notably in the European Parliament, who argue that national referendums are not really democratic at all. But these zealots should be careful. Some Irish voters were indeed muddled on referendum day. But that is a slippery slope to go down. Those same folk vote in elections: are their voices invalid then? In this referendum, working-class areas produced strong no votes

and yes votes were concentrated in affluent places. A telephone poll of 2,000 people organised by the European Commission found a majority of men voting yes, but a majority of women no. Young people under 29 voted against Lisbon by two to one. In other words, a 19th-century-style electoral roll, restricted to older, male property-owners, would have produced a handsome yes for Lisbon. But would that have been more democratic?

There are other reasons why disdaining Irish voters is a terrible idea. Plenty of no voters knew exactly what they disliked about Lisbon. For some, the loss of Ireland's European commissioner and a smaller voting weight summed up their country's reduced clout in the enlarged EU. Others said they were pro-European, but happy with the status quo, rather than deeper political integration. When most no voters said they had not been informed about the treaty, they were really saying they were confused by the competing arguments flying around. And that was a reasonable position: the arguments were contradictory.

Plenty of yes voters confessed to not understanding the treaty, too. But as all mainstream parties lined up behind it, they felt comfortable with it. If the yes campaigners had played their role with more confidence and passion, they might have been more effective in dismissing the claims of the no camp. Instead, the yes camp peddled bland generalisations, as if it were obvious that Europe was good for Ireland. The Irish commissioner, Charlie McCreevy, and the prime minister, Brian Cowen, should kick themselves for remarking that they had not read the Lisbon treaty "cover to cover". It may have seemed honest and charming at the time. But voter after voter thought they had heard the two men admit that they did not know what was in the text.

## **Don't read, don't vote**

EU governments have muddled the waters when it comes to the merits of referendums. Fully 11 countries offered referendums on the EU constitution, saying that this was a momentous text worthy of a national debate. In the end, only four votes were held, and the French and Dutch no votes in mid-2005 brought the constitution down. The constitutional fiasco is cited as evidence of the follies of referendums. Yet the EU was happy enough when the Spanish and Luxembourgish voted yes to the constitution. Indeed, these two later used their status as referendum-winners to host a meeting of the willing who had approved the original text, clearly feeling that winning a referendum gave them some sort of super-mandate.

European political leaders have proved as guilty as ordinary voters in treating the referendum as a Rorschach test. Federalists said that it showed the need for a two-speed Europe, in which a hard core surges ahead. British Eurosceptics insisted that it was all about preserving Irish sovereignty. The French president, Nicolas Sarkozy, said the vote proved that Europe needed to protect its citizens from such global ills as higher oil prices. In short, EU leaders will happily accept referendum results that tell them what they want to hear. But if the votes are unwelcome, they dismiss them as democratically meaningless. If they really think that this is a sustainable way of dealing with no votes, it is they who haven't a clue.

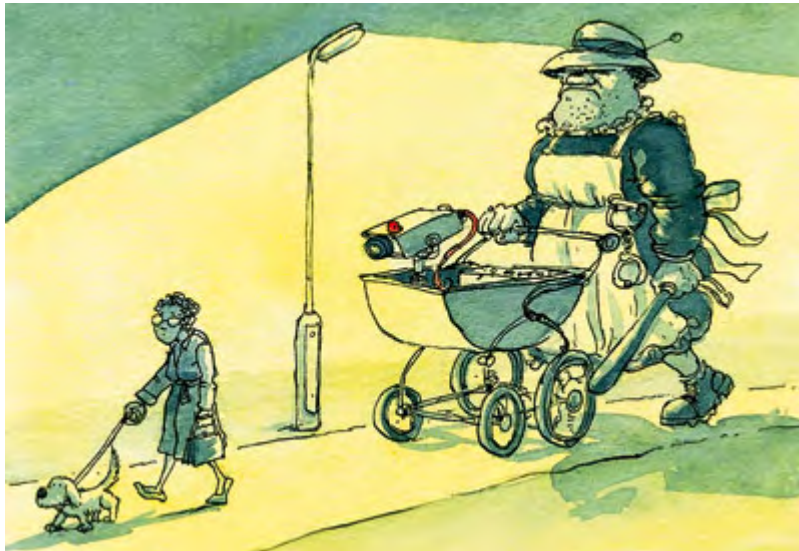
## Civil liberties

## Mary Poppins and Magna Carta

Jun 19th 2008

From The Economist print edition

Illustration by David Simonds

**British liberties have been eroded under Labour. Few seem to mind much**

LIBERALS have long lamented that, despite much stirring rhetoric about the mother of parliaments and Magna Carta, modern Britons have little real interest in their hard-won liberties. On June 17th, as Gordon Brown gave a speech on the subject, that pessimism seemed confirmed when one rapt listener fell asleep in the middle of the prime minister's oration.

Yet civil liberties are much in the news these days. Mr Brown's speech came in the wake of the surprise resignation on June 12th of David Davis, the Conservative shadow home secretary. Mr Davis quit the House of Commons after it voted to allow terrorist suspects to be detained without charge for up to 42 days (the bill now looks set for a rocky ride in the House of Lords). From the steps of the Palace of Westminster, Mr Davis accused the government of presiding over the "slow strangulation" of freedoms and the "ceaseless encroachment of the state" into daily life. He hopes to use the resulting by-election in his Yorkshire constituency as a referendum on Labour's liberal credentials, and on the growth of the nanny state in general.

The charge sheet against the government is long and damning. Besides its 42-day detention proposals (and earlier, failed plans to imprison suspects for 90 days), it is accused of colluding with America to transport terrorist suspects to secret prisons abroad. It has created new crimes, such as glorifying terrorism or inciting religious hatred, that, say critics, dampen freedom of speech. Those who breach one of its Anti-Social Behaviour Orders, introduced in 1998, can be jailed for things that are not illegal in themselves (such as visiting a forbidden part of town or talking to certain people). In 2005 the prohibition on double jeopardy—trying a person twice for the same offence—was removed for serious offences. The government has tried to cut back the scope of trial by jury.

Along with the new crimes have come new ways of detecting them. Millions of publicly and privately owned closed-circuit television cameras (no one is sure precisely how many) monitor town centres. The latest innovation is unmanned, miniature aircraft (adapted from army models) that can loiter over trouble spots, feeding images to police on the ground.

Vast computerised collections of information have become popular too. Britain possesses one of the largest police DNA databases in the world, containing the records of over 4m of 60m citizens (including a third of the black men in the country). Records are kept for everyone who is arrested, meaning that many on the system have never actually been charged with any crime. The government's identity-card



scheme, the first phase of which is due to start later this year, aims to record the fingerprints and biographical details of everyone in the land.

Other big databases are justified on grounds of administrative convenience rather than crime-fighting and security. One such is a plan to centralise the records of all patients of the National Health Service. Another would allow social services to monitor every child in the country, including how parents spend their money and how many portions of fruit and vegetables they feed their offspring each day.

Mr Brown argues that frightening new threats—terrorism, drug trafficking and (rather incongruously) benefit fraud—require new powers. In his speech he turned criticisms about authoritarianism on their head, saying that new state powers were guarantors of liberty, not threats to it. He expanded on the risks—the 2,000 terrorist suspects whom the security services are apparently tracking—and the benefits—the 8,000 suspects who have been matched with crime scenes since 2001 thanks to DNA evidence retained when they were released, uncharged, after a previous arrest. He repeated his promise that Parliament would prevent abuse of the 42-day detention law. Labour has passed a raft of other measures too: the Human Rights Act in 1998, freedom of information legislation in 2000 and changes to ensure the rights of gays and other groups.

## An unhappy few

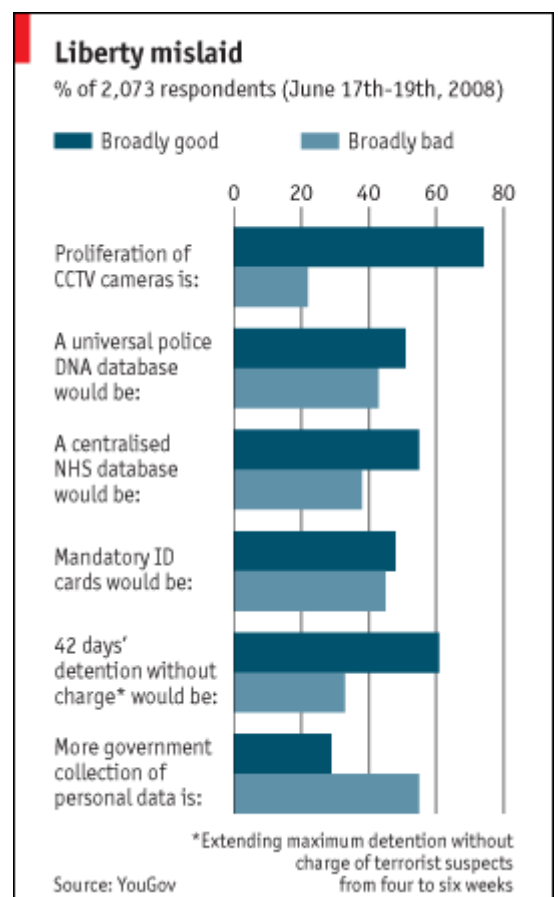
Government reassurances do not impress civil libertarians, who argue that, once restrictive new laws are in place, uses for them tend to multiply. In March it emerged that local councils had been using surveillance powers intended for deployment against serious criminals to check up on footling infringements: people who flouted smoking bans, for instance, or tried to game the school-admissions system.

And promises that sensitive personal data will be carefully stewarded look rather limp next to an official proclivity for leaving confidential material in public places. Mr Brown was badly embarrassed in November, when CDs containing 25m child-benefit records were reported lost by the Inland Revenue. More recently, on June 12th a civil servant was suspended after top-secret papers about terrorism were found on a train; on the same day another set of documents—this time on financial fraud—turned up on a different train. Five days later it emerged that a laptop stolen from the office of a cabinet minister may have contained confidential documents, violating data-protection rules.

But Britain's small band of civil libertarians has bigger problems than a recalcitrant prime minister and careless civil servants. Despite Benjamin Franklin's famous advice, the public seems happy to trade a little liberty for a little security. Surveys before the 42-days vote consistently showed public opinion in favour. More recent polling for *The Economist* shows broad public support for many liberal bugbears (see chart). Women tend to be more authoritarian than men, Labour supporters more relaxed about infringing civil liberties than Tories and Liberal Democrats, and richer folk more worried than the poor (full details can be found [here](#)). Half of the respondents were consistent in their answers to most questions; this, says YouGov's boss, Peter Kellner, is rather high.

The poll suggests that people are vehement in defence of civil liberty and privacy when considered in the abstract. Confronted with specific situations, their resolve wilts, especially when specific security gains are promised (although administrative benefits can overcome libertarian instincts too). Trust in private firms is much less than in the government—odd, since more than half of all consumers are voluntarily enrolled in data-tracking supermarket loyalty schemes.

Mr Davis's supporters point to a poll in the *Daily Mail* in which 57% of respondents said they supported his crusade. That is hard to reconcile with the findings of our survey. The alternative explanation—that any politician seen to thumb his nose at the establishment delights disenchanted voters—seems





rather plausible.

## Countering inflation

## Mervyn's sombre message

Jun 19th 2008

From The Economist print edition

## The slowdown will be harsh enough to do the trick

GRIPPED by inflationary fears, financial markets have spun around full circle in recent weeks. In early May they were expecting the Bank of England to cut interest rates again later this year in order to avert too sharp a slowdown. By mid-June they were expecting the central bank to push up rates to curb price pressures.

On June 17th official figures revealed that inflation in the year to May was even higher than the City had predicted. Consumer prices rose by 3.3%, compared with the consensus forecast of 3.2% and up from 3.0% in April. Yet by the end of the day interest-rate expectations had eased.

What made the difference was the public letter that Mervyn King, the governor of the Bank of England, wrote that day to the Treasury. He was obliged to do this because consumer-price inflation had moved more than a percentage point away from the 2.0% target that the central bank is charged to meet. City traders swiftly decoded the governor's message as doveish.

This reaction might seem perverse, since Mr King had yet more bad news to impart. In May, the central bank had forecast that inflation would peak at 3.7% in the final quarter of 2008. But in his letter the governor said that it was likely to rise above 4% later this year, as further rises in energy costs over the past month fed through to consumer prices.

Despite this gloomy prediction, Mr King's letter did not signal the need for higher interest rates. The governor blamed the surge in prices since the end of last year on global factors. Higher food and energy costs accounted for almost all the increase in consumer-price inflation since December, when it stood at 2.1%. There were good reasons to expect the overshoot to be temporary, he argued, since there was not "a generalised rise in prices and wages caused by rapid growth in the amount of money spent in the economy". A slowdown was already in train which would dampen increases in prices and wages. Provided that oil and commodity prices stabilised, inflation would begin to fall back towards the 2.0% target next year.

This scenario sounds plausible, but there are risks. According to the Bank of England's own survey, the public's median perception of inflation in the 12 months to May was 4.9%, far higher than the 3.3% registered by the consumer-price index. On the measure used for the target until December 2003, a version of the broader and longer-established retail-price index, inflation was 4.4% in May. Both measures show inflation at its highest since mid-1992 (see chart).

Inflationary expectations have also jumped, which is deeply worrying for the central bank's monetary-policy committee since this is likely to prompt higher wage demands. The minutes of its meeting earlier this month, released this week, showed eight of nine members in favour of keeping the base rate at 5.0%, with one dissenter plumping for a cut to 4.75%. But the worsening outlook did lead some of the committee's members to consider whether a rate rise might be warranted.



Mr King brought little cheer when he addressed bankers at Mansion House in the City of London on June 18th. The governor said that rising energy and food prices would cause average take-home pay to stagnate in real terms in 2008. The squeeze on households would "arguably be an even more significant restraint on consumer spending this year than the credit crunch" and would also lower demand in the

property market.

Putting the letter and speech together, Mr King's overall message was an unpalatable one. Inflation will take wing over the next few months to an extent not seen since the early 1990s. Higher interest rates may not be needed to drag it back to target. But that is scant cause for comfort. A tightening in monetary policy will be avoided only because a severe slowdown is already on the way.

## The Anglican Communion

### Two weddings and a divorce

Jun 19th 2008

From The Economist print edition

#### Storm clouds gather as Anglicanism prepares for its high noon

IT USED to be said that Anglicanism was open-minded on almost every theological question, but rather strict when dealing with marital breakdown. More recently, though, most Anglican priests have grown emollient on that issue too: they accept that, in some circumstances, the least harmful course is to bring a civilised end to an arrangement that is causing pain to all concerned. There is, they reluctantly concede, little merit in staying grumpily together for the sake of the children, or indeed for the sake of anything else that the family may once have jointly possessed and treasured. Has the time come for the Anglican Communion to apply that lesson to itself?

The depth of the crisis facing Anglicans was underlined by two recent ceremonies, one discreet and the other flamboyant. Both involved a sealing of the relationship between pairs of men. Gene Robinson, the openly gay American bishop whose consecration in 2003 plunged Anglicanism into crisis, formalised his partnership with Mark Andrew, first with a civil ceremony, and then with a service of thanksgiving at a New Hampshire church that was described as private but “absolutely joyful”.

Rather less joyful is the bishop's stated reason for going ahead with the ceremony at this point: he wanted to make sure that his will was in order because of threats to his life before the Lambeth Conference, a once-in-a-decade assembly of the world's Anglican prelates. The gathering next month will either see the final break-up of the communion (between gay-friendly liberals and conservatives who read the scripture in a more literal way) or find some formula for muddling through and minimising losses on both flanks.

As part of a desperate attempt to assuage the traditionalists, Bishop Robinson has been excluded from the guest list for Lambeth. But he will be very much present on the sidelines; and his words and deeds will attract far more publicity than the formal proceedings taking place in the ancient city of Canterbury.

The only hope of keeping most of the communion together seems to lie in persuading the Americans to restrain their liberal instincts, and indeed meekly accept conservative rebukes, to an extent that would satisfy those in the traditionalist camp. The gap seems to be widening, however, between the minimum demands of the latter (who are now holding a meeting in Jerusalem that is almost an alternative to the Lambeth show) and the maximum concessions that liberals could offer.

The other recent ceremony involved the union in a medieval London church of two male clerics. It wasn't, strictly speaking, a wedding but it certainly looked and felt like one, with a highly traditional liturgy complete with choirs, familiar hymns, and an exchange of rings and vows. Martin Dudley, the peppery incumbent of the church of St Bartholomew the Great—one of London's oldest places of worship and used in the film “Four Weddings and a Funeral”—conducted the rite in defiance of his episcopal boss, Richard Chartres. Among the conservative Africans, the affair was dismissed as final proof that liberals in the mother country had erred almost irretrievably from the faith they once brought to the colonies.

One thing the London extravaganza brought home is the awkward fact that there are not many sanctions a bishop can impose on an errant clergyman unless the incumbent literally goes mad. The Anglican ethos rests on an unspoken consensus, a tacit understanding that all manner of crankiness and eccentricity can be tolerated as long as the family somehow stays intact. But as any marriage counsellor will admit, there is not much you can do in a situation in which people are truly determined to put asunder a partnership which they once regarded as joined together by the hand of God.



## Royal Ascot and chavs

## Barbarians at the gate

Jun 19th 2008 | ASCOT  
From The Economist print edition

The most pukka of racing events gets more exclusive—or at least pretends to

AFP



Time's up for bad taste

"KNICKERS," read the stern advice to racegoers at Royal Ascot, one of the swankiest society events of the summer: "a definite yes, but not on show please ladies." Reminders were in order owing to a "lack of understanding of what formal daywear actually means in this day and age", according to the organisers of the royal meeting, which began on June 17th. Miniskirts and spaghetti straps were banned in the poshest part of the course, and girls were asked to avoid streaky fake tans.

The subtext of this crackdown, horsey types reckon, is to deter "chavs", a snooty term for people with flashy bad taste. Snobs have grumbled about Ascot going downhill for 300 years: the admittance of divorcees to the Royal Enclosure caused a stir in 1955, and the 1990s saw a battle over women's right to wear trousers. Now the debate is more urgent because Ascot, like other summer staples—Henley, Wimbledon and the like—is being challenged by new pretenders. The middle classes flock to literary love-ins such as Hay-on-Wye, while music festivals like Glastonbury draw in the more adventurous members of the aristocracy. The emergence of this "new Season" is forcing Ascot to play up its strength: an image of refinement and exclusivity. The banshee shriek of a miniskirted chavette makes this harder.

The non-posh, however, make up the bulk of those at Ascot. Tickets cost £45 (\$88), less than for a top-flight football match. And though the public gets through 170,000 bottles of champagne and four tonnes of smoked salmon over the five days, one can also buy a bacon roll for £3.50. Ascot's image is upper-crust, but it is designed for mass appeal.

The racing world is unusually good at mixing social groups, says Kate Fox, a guerrilla anthropologist who has written a book on the racing scene. Gambling is crucial, she reckons, because shared risk-taking creates bonds. A flutter also satisfies people's natural desire for risky behaviour, which might explain why disorder is rare at the races, despite the copious amounts of alcohol consumed by big groups of young men.

The social divide might not be that great anyway. The most fashionable place for a picnic lunch at Ascot is the car park, according to Lady Emily Compton, social editor of *Tatler*, a magazine that knows about such things. But even bumper-to-bumper, there is a hierarchy: Car Park No. 1 is "the car park", Lady Compton says. Just don't tell the chavs.



## Topping up NHS care

### All or nothing

Jun 19th 2008

From The Economist print edition

#### The government backs away from a deeply unpopular health-care policy

OTHER issues—crime, immigration—may worry the electorate more, but governments know that few are as prone to flare up as health care. A single tale of an operation repeatedly cancelled, or a tumour that becomes terminal while a patient waits for a scan, can convince people that the National Health Service is unfit for purpose. The effectiveness of such stories has made them staple pre-election fodder in recent years.

To prevent the NHS from turning septic politically, the health secretary, Alan Johnson, moved on June 17th towards dropping an increasingly untenable piece of dogma. The issue is whether patients who doctors think might benefit from expensive new drugs that are not provided by the NHS must be denied all state-financed treatment if they choose to buy those drugs privately. The NHS has always rationed care but, in an era of medical paternalism and no internet, patients were ignorant of what they were missing. That allowed the fiction to flourish that the highest-quality care was being provided for all, according solely to need. Growing awareness of expensive drugs, particularly for cancer, that hover just out of NHS reach has now called that into question.

Last year an old rule forbidding the combination of private and NHS treatments—originally framed to stop consultants raiding their NHS waiting lists to pad their lucrative private practices—was dusted off and cited to justify refusing NHS care to those who paid for treatment privately. Much was made of the health service's founding mission—to provide care to all that is free at the point of use, untainted by a “two-tier” system that produces better outcomes for the better off.

This provoked a slew of newspaper articles about dying cancer patients abandoned by the NHS and forced to spend their life savings on treatment they thought they had already paid for through taxes. Think-tanks as diverse as the market-minded Reform and Labour's favourite IPPR agreed the line could not hold. The British Medical Association passed a motion condemning it earlier this month. On June 16th the NHS Confederation, which represents the managers who must apply the ruling, published a discussion paper on top-ups. Banning them “threatened to undermine public confidence in the NHS”, said Nigel Edwards, its policy director. Doctors for Reform, a campaign group, had raised money for a judicial review and was simply waiting for the right test case to present itself.

All this drove Mr Johnson eventually to stop repeating the policy and start addressing the issue. He chose to deliver the message in response to a parliamentary question on the matter from John Baron, a Conservative MP who saw a constituent, Linda O'Boyle, denied NHS treatment for bowel cancer after she decided to buy herself cetuximab, a pricey drug. The health secretary revealed that he had asked Mike Richards, the NHS's national clinical director for cancer, to consider whether and when patients may top up their NHS care. Mr Richards is to report in October.

Though criticism of the ban on giving NHS care to those who have bought drugs privately has been widespread, in one surprising quarter comment has been muted. The Conservative leader, David Cameron, went so far as to say that he was “tempted” to allow patients to top up NHS care, but no farther. One observer speculates that the government delayed announcing its review in the hope that he would be lured into saying something it could spin as proof that the Tories deal with problems in public services by facilitating escape from them. Whether or not official thinking was that convoluted, the issue was bound to overshadow both the 60th anniversary of the NHS in July and a far-reaching review of its future by Lord Darzi, a surgeon, which is due by the end of June. The debate has just begun.





## British banks

## Waist deep in an ocean of pain

Jun 19th 2008

From The Economist print edition

**And no sign that the tide has peaked, as bank regulation is strengthened**

FOR a lesson on how to keep your job when all about you are losing theirs and blaming it on you, one need look no farther than the bosses of Britain's biggest banks. Their once-mighty institutions, among the world's largest, have been humbled. Their shareholders have been hammered. Many of their employees will soon be looking for work, and they have wreaked havoc on the economy. Yet apart from the head of Northern Rock, which suffered a run on deposits last year and had to be nationalised, no boss of a major British bank has left in shame. (The man who ran Bradford & Bingley, a small, troubled bank, stepped down this month, saying that the stress was bad for his heart.)

The remarkable tenacity of British bank bosses stands in sharp contrast to those running banks elsewhere in Europe and in America, many of whom have been eased out over the past year. That so few British heads have rolled is not a sign that British banks have avoided the worst of the credit crunch, or that their bosses have done a better job of steering them through turbulent waters. If anything, it suggests the opposite: that shareholders are so worried about the state of the banks, and public confidence in them, that they dare not call loudly for changes in management.

In recent months two concerns have been at the top of most investors' minds. The first was how severely banks would have to write down the value of their holdings of exotic credit derivatives related mainly to dodgy American mortgage loans. That has more or less receded now, as most large banks have opened their books and splashed them with red ink.

The second main worry has been whether banks were holding enough capital as a cushion against loans that turn bad. That process too is now drawing to a close. Most large banks have successfully tapped shareholders old and new for more money, though at the painful cost of attracting short-sellers and seeing their share prices collapse (see [article](#)). Barclays, one of the last big banks to do so, was, as *The Economist* went to press, still busily trying to sell shares to cash-rich sovereign wealth funds and hoping to raise about £4 billion, giving existing shareholders the choice of also buying stock.

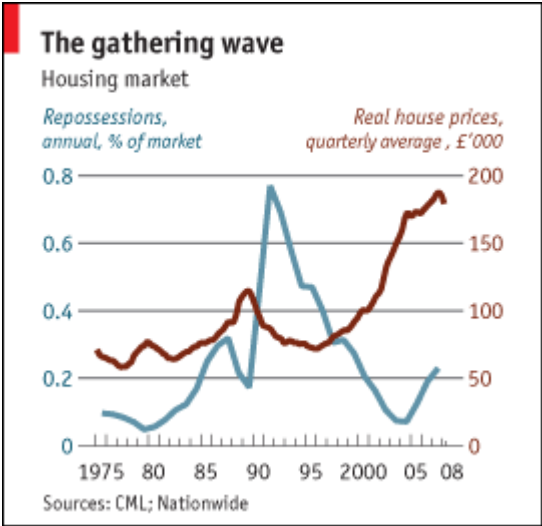
While concerns about capital adequacy were hanging over banks, shareholders were reluctant to rock the boat. No longer: rumours abound in the City of fractious meetings and calls for various heads. Among those most often suggested for decapitation are Sir Fred Goodwin, the chief executive of Royal Bank of Scotland (which tapped the market for £12 billion in April) and Andy Hornby, the boss of HBOS, which is raising £4 billion.

For all the whispers, shareholders' anxiety may yet keep bosses in their jobs for a while longer. Many worry that the worst is far from over. The concerns of some may be eased by Alistair Darling, the chancellor of the exchequer, who fleshed out plans to shake up banking regulation in a speech to bankers on June 18th.

The Bank of England will be given formal legal responsibility for financial stability. It will take charge of a new "special resolution regime" for failing banks, although the Financial Services Authority, which supervises financial institutions, will trigger the procedure. A new financial-stability committee will be set up within the bank, drawing on City expertise. It also emerged that Sir John Gieve, the deputy governor in charge of financial stability, who came in for criticism for the central bank's poor response to the crisis at Northern Rock, will leave his job early, in 2009.

Yet preparing for the next crisis still leaves banks to muddle through the current one. Having written down assets and raised capital, they still face an all-too-familiar storm—a falling property market and an economic downturn.

Attention is now shifting to the quality of banks' loan books, and particularly their exposure to mortgages, commercial property and construction firms. Thus far, although loan losses and home repossessions are rising sharply, they are still low compared with the last big downturn, in the early 1990s (see chart). Were bad debts to reach the levels seen then, banks' losses before tax could be as high as £19 billion, some analysts reckon. That would send several of them back to their shareholders, cap in hand. Not the ideal time, perhaps, for a boardroom coup.



## Red tape

## The wood for the trees

Jun 19th 2008

From The Economist print edition

## A proposed new safety standard shows pernicious regulatory creep

WHAT could be more relaxing than to amble through an ancient wood, pausing to rest beneath a gnarled old tree or even to hug one? Where some see rest and relaxation, though, others see danger and an opportunity for red tape. BSI British Standards, an official setter of benchmarks, is drafting guidelines on safety inspections for trees that cast a very different light on these venerable denizens and the hidden dangers of "branch shedding" (falling branches, to the layman) and even "whole-tree failure" that they pose. It suggests they should all be scrutinised once a year by their owners. Trained inspectors should beat them with mallets and prod them with probes every two years or so and still more expert folk assess the risk they pose to ambling, snoozing or tree-hugging passers-by every five years.

With such a draconian standard proposed, one could be forgiven for thinking that trees pose a grave threat to life and limb, one surely magnified by the fact that these seemingly ferocious specimens cover some 12% of Britain. Yet, according to the best available data, *kamikaze* trees crush only some six people to death a year (though more die after driving into fallen trees or branches). In contrast, the Royal Society for the Prevention of Accidents reckons that more than 4,000 are killed each year in accidents in their own homes.

The real danger highlighted by the proposed guidelines is that of regulation gone wild. Even those usually associated in the public mind with the nanny state are dismayed at the heavy-handed approach. Geoffrey Podger, the chief executive of the government's Health and Safety Executive, reckons most trees should be left alone and experts called in to assess obviously rickety ones only in very public places.

Sir Harry Studholme of the Forestry Commission frets that the tiny risk of harm trees pose are not being properly weighed against their many benefits, not least in ameliorating climate change. Landowners, local councils and ordinary folk with back gardens may choose to chop down their trees rather than pay for onerous regular inspections, he says. This would exacerbate an existing trend: some public bodies are already cutting down trees rather than risk getting sued if one causes harm. Exeter Cathedral last year removed a beautiful old stand of healthy trees on its green after they were declared to be of a dangerous variety.

Rick Haythornthwaite, the chairman of the Risk and Regulation Advisory Council, which gives independent guidance to the government, reckons the attempt to over-regulate trees reveals two trends. The first is the tendency for small risks to become magnified in the public mind and provoke disproportionate responses. The second is the growing involvement of special-interest groups in campaigning for tougher regulation. It is surely no coincidence, he points out, that among the most active proponents of the new standard are the tree professionals who stand to gain most from a more burdensome inspection regime.

Bagehot

## Irrational exuberance

Jun 19th 2008

From The Economist print edition

Illustration by Steve O'Brien



### Why, without David Davis, the Conservatives need a Pickles tendency

THERE is no crime in being plump, and no shame in losing your hair. Increasing numbers of people are fat, and quite a few have visible pates: on a representative basis, lots of MPs ought to be tubby and bald too. But leading politicians tend to be hirsute and Obama-skinny. Aside from the creeping need for them to look nice, the modern job (all that running in and out of television studios) is slimmingly athletic. So Eric Pickles, the shadow local-government secretary—receding on top, and the roundest presence on the front benches—cuts a distinctive figure.

Why is Bagehot picking on Mr Pickles? He is a less influential Tory than, say, Caroline Spelman, the party chairman, whose finances are currently and embarrassingly being investigated by the parliamentary commissioner for standards. He is much less prominent and controversial than David Davis, the ex-shadow home secretary who has quixotically resigned his parliamentary seat, triggering a by-election that he wants to make a referendum on civil liberties. Mr Davis's eruption, however, has made Mr Pickles—and the qualities he embodies—pressingly important for the Tories and David Cameron, their leader.

The first of these is a determination to win. Mr Pickles is the champion of Crewe. His hitherto low profile, and his status within his party, rose last month when he ran the by-election campaign that ended with a fairground-sized swing in the popular vote, a whopping Conservative majority and proof that the Tories could win in metropolitan areas north of London. Mr Pickles reputedly coined the phrase "love-bomb" to describe the tactics used to recruit erstwhile Liberal Democrat voters: instead of haranguing them, the idea was to persuade them that their demands for change (in environmental policy, say) could be realised by electing Conservatives.

For much of the past decade, winning did not seem to be many Tories' main goal. There was a vague assumption, as Mr Pickles puts it, that the country would "one day wake up and apologise for putting us in opposition". Gordon Brown, whom many Tories authentically despise, has helped to stiffen their sinews, and to remind them that they have an enemy besides each other. Mr Davis's crusade is (for Mr Cameron) a worrying return to priorities other than taking and wielding power. Even in the absence of serious opponents at his by-election—neither Labour nor the Lib Dems plan to field a candidate—Mr Davis has succeeded in advertising both his cause and himself. But he has exchanged an odds-on chance of being home secretary for the hope of being the backbench go-to man on issues of "freedom".

The second virtue that Mr Pickles exemplifies is teamwork. He is careful to share the credit for Crewe with party activists, other MPs and Mr Cameron. He has updated his views on gay rights to fit his leader's social liberalism. That sort of teamwork has recently been one of the Tories' main advantages over Labour. Where Mr Brown's glowering personality has obscured the talents in his cabinet, Mr Cameron lets George Osborne (the shadow chancellor), Michael Gove (his education spokesman) and others shine. As a result, the shadow cabinet has become more familiar than opposition politicians generally manage to be—and has created an impression that the Cameroon tendency in the Tory party is bigger than it really is. By quitting, Mr Davis compromised that image of like-minded harmony.

The victor of Crewe's third useful trait is one that Mr Davis shares: his humble background. Mr Pickles's Labour-voting parents ran a shop on a council estate in Yorkshire. He says the Soviet invasion of Czechoslovakia in 1968 pushed him into Conservatism. Twenty years later he caught Margaret Thatcher's eye as leader of Bradford council (local politics honed his campaigning skills). He scoffs at Labour's effort to use class against the Tories in Crewe: the Labour activists who wandered around the local curry houses, he says, seemed to have learned about the working classes from Orwell's "The Road to Wigan Pier" and Tressell's "The Ragged Trousered Philanthropists".

Crewe encouraged some Tories to believe that class is dead, at least as a basis for party preferences. That is hasty: Britain is still a place where snap judgments are made about shoes, accents and haircuts—and where the ripe vowels and superior biographies that distinguish many senior Tories might, with more tact, be turned against them. The departure of Mr Davis, who grew up on an estate and has a squashed nose to prove it, has made that easier—and Mr Pickles's countervailing presence more valuable. Dominic Grieve, whom Mr Cameron hurriedly (perhaps too hurriedly) appointed in Mr Davis's stead, is a sometimes supercilious-seeming barrister. William Hague, the shadow foreign secretary, is another Yorkshireman who bought his own furniture; but his precocious, polymathic facility risks making him seem otherworldly to class-conscious voters.

## **It takes all sorts**

One of the instant lessons of the Davis drama seems to be that voters respect a politician who takes a stand, even if they disagree with it. Defending the odd unpopular position, it follows, may be politically helpful: like a kind of irrational exuberance, it can make a party look sincere, principled, and so on, shaping the underlying character judgments on which voting choices are ultimately made. As with policies, so with the politicians themselves. Seemingly tired of suave, identikit pole-climbers, the public craves anti-politicians. It can pay to be unorthodox.

Mr Pickles is scarcely a maverick. But in his own, useful ways, he is unusual. He is not the most polished media performer; he will probably not be rewarded with seriously high office in a Tory government. But he talks in plain English and makes decent jokes, over and above his gag-friendly name and the funniness sometimes automatically imputed to chubby people. Mr Cameron could do with more like him.

## The nuclear network of A.Q. Khan

### A hero at home, a villain abroad

Jun 19th 2008

From The Economist print edition



EPA

**New revelations on the sort of weapons expertise that was on offer to all comers have deepened the world's worries about nuclear proliferation**

COMPACT in design, efficient in operation and capable of inflicting immense destruction over long distances. There is something truly spine-chilling about the sophistication of the wares displayed in a build-it-yourself bomb catalogue that was apparently shared with members of an international nuclear smuggling ring by a Pakistani scientist, Abdul Qadeer Khan. The quality of the goods on sale, it now appears, was every bit as alarming as the geographical scope of his network.

New nuggets of information, suggesting that bomb-making know-how as well as enrichment was on offer, have emerged in a report by David Albright, a former weapons inspector who now runs the Institute for Science and International Security, an independent research outfit in Washington, DC. Mr Albright says modern designs for small, ingenious nuclear weapons have been discovered among the computer files of three Swiss citizens who were associated with Mr Khan.

"Why did [they]...have these designs, unless they had sold or intended to sell them for Mr Khan?": that is one of Mr Albright's rhetorical questions. Without going into quite so much detail, America's national security adviser, Stephen Hadley, confirmed on June 15th that the administration was as concerned about possible dissemination of weapons know-how by the Khan network as it was over the spread of uranium enrichment technology.

It now seems that on computers belonging to the Swiss trio (and reportedly on others in Dubai, Malaysia and Thailand) was the design of a modern nuclear warhead, tested and deployed by Pakistan, its parts ready-coded for ease of manufacture. But who were the likely buyers? And will this discovery prod Pakistan to tell the world more about the illicit trade Mr Khan had developed into an art form?

The network's customers for other nuclear technologies and equipment were Libya, Iran and North Korea, though suspicion has at times attached to Algeria, Saudi Arabia and Syria too. But Libya has been out of the bomb business since 2003. Jaws dropped when among the haul of equipment and documents it handed to inspectors was an Islamabad dry-cleaner's bag containing most (not all) of the drawings for a clunky Chinese-designed nuclear weapon from the 1960s, given to Pakistan before China decided that spreading the bomb was a dumb idea.



Unlike the Maoist model, the modern, computerised bomb design would fit easily on Pakistan's Ghauri missiles. Pakistan denies it, but these are a knock-off of North Korea's 1,300km-range Nodong rockets. Pakistan appears to have paid for its Ghauris with some nuclear assistance. Pakistan's president, Pervez Musharraf, denies this too. But in his autobiography he admitted that the Khan network had supplied Kim Jong Il's regime with some 20 uranium-enriching centrifuges.

Whatever the truth behind their missile deal, Pakistani officials were genuinely shocked to be told recently that Mr Khan was selling their most closely guarded weapons secrets too, according to Mr Albright. North Korea did test a nuclear device, in 2006. But its bomb used home-produced plutonium from Mr Kim's Yongbyon nuclear reactor for its fissile core; the Pakistani design touted by Mr Khan and his partners uses uranium.

Despite other evidence to the contrary, North Korea insists it got no uranium help from Pakistan or anywhere else. Recently (or so America and Israel say) it was caught out helping Syria to build a nuclear reactor (which Israel later flattened) that could produce plutonium for weapons, just like Yongbyon did. America seems ready to let both these matters go for now, so long as Mr Kim furnishes an accurate and verifiable inventory of his plutonium production. The gamble is that this would be a big step towards a six-party deal, to include South Korea, Japan, China and Russia, that could lead eventually to the dismantling of all North Korea's nuclear programmes.

Unlike Libya and North Korea, Iran flatly denies any weapons intent. It bought uranium-spinning equipment from Mr Khan, but says its nuclear work is entirely peaceful. Yet it has defied a string of UN Security Council resolutions demanding that the work be halted until inspectors can be sure of that. The trouble is that uranium enriched a little can be used in nuclear-power reactors, but when enriched a lot can be abused for bomb-building.

Iran's determination to enrich on regardless looks like dooming the latest offer of negotiations from America, Britain, France, Germany, Russia and China. The six have promised Iran assistance with other, less proliferation-prone nuclear technology, and direct talks on a whole range of economic, trade and security issues that Iran itself raised in a set of counter-proposals last month. A crucial difference between the two offers is that Iran wants to enrich on regardless, on its own territory, whereas the six insist the work be suspended before negotiations start.

Unless Iran shows willing, says Britain's prime minister, Gordon Brown, European governments are prepared to extend their sanctions on Iran, for example by freezing the overseas assets of Bank Melli, Iran's largest commercial bank. (That move is not quite a done deal, but Mr Brown is confident it soon will be.) Despite record world energy prices, the Europeans may consider blocking investment in Iran's oil and gas industries too. America already has tough sanctions in place, though Russia and China do not.

Iran's insistence on enriching, whatever the cost, deepens suspicion of its motives. Now there are more worries. Like Pakistan's Ghauri missiles, Iran's Shahab-3 rockets are clones of Mr Kim's Nodongs. So the Khan network's modern warhead design would fit them just as nicely.

There is no evidence of any such transaction, but American and other intelligence agencies recently showed nuclear inspectors from the International Atomic Energy Agency (IAEA), the UN's nuclear guardian, evidence pointing to Iranian weapons work which America thinks may have stopped in 2003—though others believe it continues. This includes both high-explosive testing for possible nuclear triggers and work on a Shahab-3 missile cone to accommodate a nuclear warhead. Iran has dismissed the material as fabricated. But it has yet to give a convincing explanation of why it had a document, supplied by Mr Khan and his associates, on shaping uranium into spheres—a technique useful only in weapons building.

That is as far as the evidence goes. Pardoned by Mr Musharraf after a public confession in 2004, Mr Khan was put under house arrest. Neither American officials nor IAEA inspectors have been allowed to question him. Now the revered "father" of Pakistan's bomb is campaigning for release, and he seems to have many admirers among his compatriots. But the revelation that he was preparing to sell his own country's nuclear crown jewels surely ought to be enough to goad the authorities into questioning him more thoroughly. Without further information on the scope of his network and the real nature of his nuclear dealings, it will be impossible to assess how many other people (both salesmen and customers) are still engaged in the same murky business.





## Refugees

## Still knocking, as the doors close

Jun 19th 2008 | NEW YORK AND SYDNEY  
From The Economist print edition

Reuters



## As forced migration increases, some host countries grow harder

MORE and more luckless people are seeking safety and a better future in whatever country they can find; and in various ways, many of the rich countries which might be able to help them are hardening their hearts, often under electoral pressure. That seems to be the common theme of many recent news reports about forced migration.

After a welcome decline between 2001 and 2005, the number of refugees—in the classic sense of people forced to leave their countries because of war or persecution—rose in 2007 for the second straight year, mainly because of turmoil in Iraq and Afghanistan, the United Nations reported this week. As of last December there were 11.4m people under the care of the UN High Commissioner for Refugees, up from 9.9m a year earlier. Then there are people uprooted within their own countries: the December 2007 total was 26m, a year-on-year increase of 1.6m. Countries with high numbers of internally displaced include Colombia (3m), Iraq (2.4m), Uganda (1.2m) and Somalia (1m). And if you throw the net really wide, to include people forced to move by natural disasters, the number of uprooted people reached 67m last year, the UNHCR says. Its secretary-general, António Guterres, has predicted that the interlocking problems of climate change, food shortage and state failure could well make the problem worse before long.

Only a fraction of the people on the move actually invoke the UNHCR procedure under which somebody who faces persecution at home can demand asylum in another country. But that figure also ticked upwards (by 5% to 647,200) in 2007, the first rise for four years. In the European Union, the number of bids for asylum rose by 10.9% last year after several years of decline. Against this dire background, people who lobby for refugees' rights were dismayed by the European Parliament's passage on June 18th of a long-debated "returns directive" which sets the conditions under which illegal migrants can be detained, and eventually sent home.

Under the directive, people who enter the European Union illegally can be detained for at least six months, plus a further year if they "fail to co-operate" with the authorities. (Existing limits vary from 32 days in France to 20 months in Latvia; eight countries declare no limits.) They should be kept in purpose-built detention centres, except in cases of "unforeseen heavy burdens", in which case ordinary jails will do. Anybody who is expelled from an EU country may not re-enter for five years. Defenders of the directive say it will raise standards in some places and allow detention only when necessary.

In theory, none of these measures has anything to do with bona fide fugitives from persecution; the new rules are aimed at illegal entrants with no claim to asylum, or at those who seek asylum and are rejected. But UNHCR officials, and

migrants' lobbies, are still unhappy. They argue that asylum-seekers are often lumped together with illegal entrants, and that refugees get little chance to stake their claim.

It is true that the fate of asylum-seekers varies from one EU country to another. It seems that an Iraqi stands a better-than-even chance of being granted asylum in Germany, but virtually no chance in Greece. Two-thirds of the Chechens who sought asylum in Austria were successful, while no Chechen has found shelter in Slovakia. Those figures were cited by EU officials this week as they laid out a plan for a common asylum policy that would deal consistently with people at Europe's gate.

Does all this entitle other rich countries—sometimes exasperated by Europe's image as the home of compassionate capitalism—to give the EU a scolding for its treatment of the world's unfortunates?

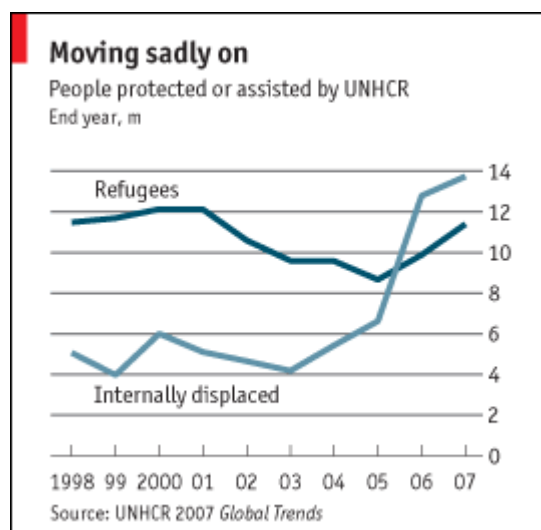
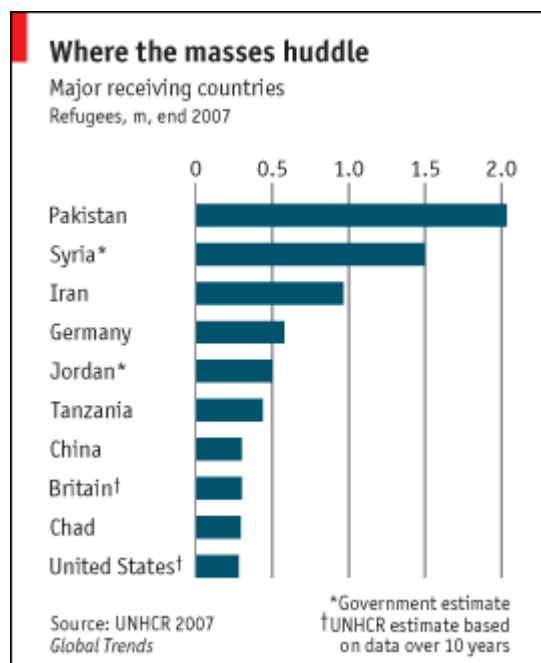
Canada is often thought to have set a gold standard for the treatment of asylum-seekers. It gives them ample legal protection, and detains them only briefly and rarely. But refugee groups have criticised Canada recently over an agreement it has made with the United States to co-operate on asylum cases. This lays down that a refugee making his way from America to Canada be returned across the border for processing, on the principle that America is a safe asylum destination. That agreement was struck down by a Canadian court in November 2007, and is awaiting a review by Canada's Supreme Court.

Does the United States have any reason for self-reproach over asylum-seekers? It is certainly a very popular destination, attracting 50,700 applications last year, more than any other country. And in contrast with some parts of Europe, the word "asylum-seeker" (which in certain British contexts is a term of abuse) has no particular negative connotations in America. Plenty of Americans fret about labour migration, but the issue of asylum is lower on the public's radar screen than in Europe.

More's the pity, say some Americans who work with refugees. There are some genuine fugitives who find themselves in jail, often for long stretches—or else returned to their home countries with little consideration of their claims. One reason for this, say refugee advocates, is that people who flee from war zones—where local warlords extort "taxes" from the whole population—can find themselves branded as sympathisers with terrorism.

Maybe all rich democracies should look at the recent history of Australia, where attitudes (public and private) to refugees have lately swung from harshness to a softer approach. For the previous government headed by John Howard, a tough stance towards migrants was a political trademark. In 2001, after boatloads of mainly Middle Eastern fugitives started landing in western Australia, the government sent troops to board the *Tampa*, a cargo vessel that had rescued about 400 desperate people from their own sinking boat. Mr Howard's insistence that none of them would get to Australia was popular at home, but it marred the country's international reputation.

Over time, though, media reports about the conditions in which would-be immigrants were being kept in offshore detention centres, or in the Australian outback, had an effect on public opinion. Since Kevin Rudd, a centre-leftist, succeeded Mr Howard as prime minister last November, policy has changed. Two nasty detention centres on islands have been shut, and it has been made easier for asylum-seekers to graduate to residency and citizenship. The public seems, on balance, to approve—though full employment and a thriving economy, thanks to the world commodity boom, probably help.





## Short-wave radio

### Snap and crackle goes pop

Jun 19th 2008

From The Economist print edition

#### Life in the old wireless yet

PROPAGANDA, news, curiosity and even espionage were the fuel of short-wave radio broadcasts. Readers of a certain age may recall the thrill of hearing a crackly, venomously worded broadcast from far away, such as the Voice of Free China denouncing the communist bandits on the mainland, or Radio Peace and Progress in Moscow deriding the imperialist hullabaloo about human rights.

The huge advantage of short-wave was that such material was simple to send and hard to stop. Thanks to their high frequency and short wavelength, even low-powered signals can bounce off the ionosphere halfway round the world; anyone can listen. Jamming them—a favourite Soviet tactic, still practised by China today—is an expensive and patchy business.

The end of the cold war, deregulation and new technology made short-wave look out of date. The propaganda war between east and west abated. Poor countries liberalised their broadcasting regimes, turning information famine into abundance. New stations, transmitting on crackle-free FM, soaked up listeners. Many started partnerships with international broadcasters who had previously used short-wave. Satellite-television news from stations such as CNN provided powerful competition in meeting the needs of the news-hungry. Broadband internet connections and even mobile phones can be used to listen to a plethora of radio stations.

But short-wave's retreat has slowed. Though the BBC's World Service uses around 15 different technologies to reach its listeners, short-wave is still king: latest figures, published last week, show 105m of its 182m-strong global audience still listen that way, the majority of them in Africa. In Nigeria the short-wave audience even grew slightly last year. That's not going to change soon: the BBC is upgrading its transmitters on Ascension Island (to be powered, greenly, by a new wind farm). Mike Cronk, a BBC bigwig, says the business case was "compelling".

As competition for slots on the spectrum has eased, private broadcasters are moving in, notably American-based religious ones such as Assemblies of Yahweh, Adventist World Radio and the Fundamental Broadcasting Network. Short-wave also stays useful after natural disasters or political crises. Foreign broadcasters such as Voice of America have been stepping up their short-wave offerings to Zimbabwe in recent weeks.

Perhaps the most loyal users of all are intelligence services. So-called "Numbers stations" such as the Cyprus-based Lincolnshire Poacher (named after the jaunty tune that precedes the broadcasts) allow Britain's MI6 and others to send messages to anyone anywhere in the world, untraceably and in unbreakable code. No other medium is as ubiquitous and as secure. The only snag would be if owning a short-wave radio were to come to be seen as so eccentric as to arouse suspicion. Indeed, fewer such sets are sold these days. But as Simon Spanswick of the Association for International Broadcasting, an industry umbrella group, notes, people rarely throw their radios away.

## The power and the glory

Jun 19th 2008

From The Economist print edition

Illustration by Ian Whadcock



**The next technology boom may well be based on alternative energy, says Geoffrey Carr (interviewed [here](#)). But which sort to back?**

EVERYONE loves a booming market, and most booms happen on the back of technological change. The world's venture capitalists, having fed on the computing boom of the 1980s, the internet boom of the 1990s and the biotech and nanotech boomlets of the early 2000s, are now looking around for the next one. They think they have found it: energy.

Many past booms have been energy-fed: coal-fired steam power, oil-fired internal-combustion engines, the rise of electricity, even the mass tourism of the jet era. But the past few decades have been quiet on that front. Coal has been cheap. Natural gas has been cheap. The 1970s aside, oil has been cheap. The one real novelty, nuclear power, went spectacularly off the rails. The pressure to innovate has been minimal.

In the space of a couple of years, all that has changed. Oil is no longer cheap; indeed, it has never been more expensive. Moreover, there is growing concern that the supply of oil may soon peak as consumption continues to grow, known supplies run out and new reserves become harder to find.

The idea of growing what you put in the tank of your car, rather than sucking it out of a hole in the ground, no longer looks like economic madness. Nor does the idea of throwing away the tank and plugging your car into an electric socket instead. Much of the world's oil is in the hands of governments who have little sympathy with the rich West. When a former head of America's Central Intelligence Agency allies himself with tree-hugging greens that his outfit would once have suspected of subversion, you know something is up. Yet that is one tack James Woolsey is trying in order to reduce his country's dependence on imported oil.

The price of natural gas, too, has risen in sympathy with oil. That is putting up the cost of electricity. Wind- and solar-powered alternatives no longer look so costly by comparison. It is true that coal remains cheap, and is the favoured fuel for power stations in industrialising Asia. But the rich world sees things differently.

In theory, there is a long queue of coal-fired power stations waiting to be built in America. But few have been completed in the past 15 years and many in that queue have been put on hold or withdrawn, for two reasons. First, Americans have become intolerant of large, polluting industrial plants on their



doorsteps. Second, American power companies are fearful that they will soon have to pay for one particular pollutant, carbon dioxide, as is starting to happen in other parts of the rich world. Having invested heavily in gas-fired stations, only to find themselves locked into an increasingly expensive fuel, they do not want to make another mistake.

That has opened up a capacity gap and an opportunity for wind and sunlight. The future price of these resources—zero—is known. That certainty has economic value as a hedge, even if the capital cost of wind and solar power stations is, at the moment, higher than that of coal-fired ones.

The reasons for the boom, then, are tangled, and the way they are perceived may change. Global warming, a long-range phenomenon, may not be uppermost in people's minds during an economic downturn. High fuel prices may fall as new sources of supply are exploited to fill rising demand from Asia. Security of supply may improve if hostile governments are replaced by friendly ones and sources become more diversified. But none of the reasons is likely to go away entirely.

Global warming certainly will not. "Peak oil", if oil means the traditional sort that comes cheaply out of holes in the ground, probably will arrive soon. There is oil aplenty of other sorts (tar sands, liquefied coal and so on), so the stuff is unlikely to run out for a long time yet. But it will get more expensive to produce, putting a floor on the price that is way above today's. And political risk will always be there—particularly for oil, which is so often associated with bad government for the simple reason that its very presence causes bad government in states that do not have strong institutions to curb their politicians.

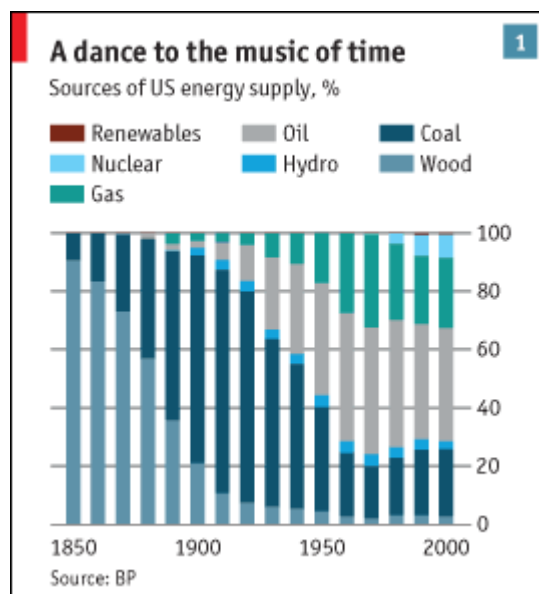
## A prize beyond the dreams of avarice

The market for energy is huge. At present, the world's population consumes about 15 terawatts of power. (A terawatt is 1,000 gigawatts, and a gigawatt is the capacity of the largest sort of coal-fired power station.) That translates into a business worth \$6 trillion a year—about a tenth of the world's economic output—according to John Doerr, a venture capitalist who is heavily involved in the industry. And by 2050, power consumption is likely to have risen to 30 terawatts.

Scale is one of the important differences between the coming energy boom, if it materialises, and its recent predecessors—particularly those that relied on information technology, a market measured in mere hundreds of billions. Another difference is that new information technologies tend to be disruptive, forcing the replacement of existing equipment, whereas, say, building wind farms does not force the closure of coal-fired power stations.

For both of these reasons, any transition from an economy based on fossil fuels to one based on renewable, alternative, green energy—call it what you will—is likely to be slow, as similar changes have been in the past (see chart 1). On the other hand, the scale of the market provides opportunities for alternatives to prove themselves at the margin and then move into the mainstream, as is happening with wind power at the moment. And some energy technologies do have the potential to be disruptive. Plug-in cars, for example, could be fuelled with electricity at a price equivalent to 25 cents a litre of petrol. That could shake up the oil, carmaking and electricity industries all in one go.

The innovation lull of the past few decades also provides opportunities for technological leapfrogging. Indeed, it may be that the field of energy gives the not-quite-booms in biotechnology and nanotechnology the industrial applications they need to grow really big, and that the three aspiring booms will thus merge into one.



The possibility of thus recapturing the good times of their youth has brought many well-known members of the "technorati" out of their homes in places like Woodside, California. Energy has become supercool. Elon Musk, who co-founded PayPal, has developed a battery-powered sports car. Larry Page and Sergey Brin, the founders of Google, have started an outfit called [Google.org](http://Google.org) that is searching for a way to make renewable energy truly cheaper than coal (or  $RE < C$ , as they describe it to their fellow geeks).



Vinod Khosla, one of the founders of Sun Microsystems, is turning his considerable skills as a venture capitalist towards renewable energy, as are Robert Metcalfe, who invented the ethernet system used to connect computers together in local networks, and Mr Doerr, who works at Kleiner Perkins Caufield & Byers, one of Silicon Valley's best-known venture-capital firms. Sir Richard Branson, too, is getting in on the act with his Virgin Green Fund.

This renewed interest in energy is bringing forth a raft of ideas, some bright, some batty, that is indeed reminiscent of the dotcom boom. As happened in that boom, most of these ideas will come to naught. But there could just be a PayPal or a Google or a Sun among them.

More traditional companies are also taking an interest. General Electric (GE), a large American engineering firm, already has a thriving wind-turbine business and is gearing up its solar-energy business. The energy researchers at its laboratories in Schenectady, New York, enjoy much of the intellectual freedom associated with start-up firms, combined with a secure supply of money.

Meanwhile, BP and Shell, two of the world's biggest oil companies, are sponsoring both academic researchers and new, small firms with bright ideas, as is DuPont, one of the biggest chemical companies. Not everyone has joined in. Exxon Mobil, the world's largest oil company not in government hands, is conspicuously absent. But in many boardrooms renewables are no longer seen as just a way of keeping environmentalists off companies' backs.

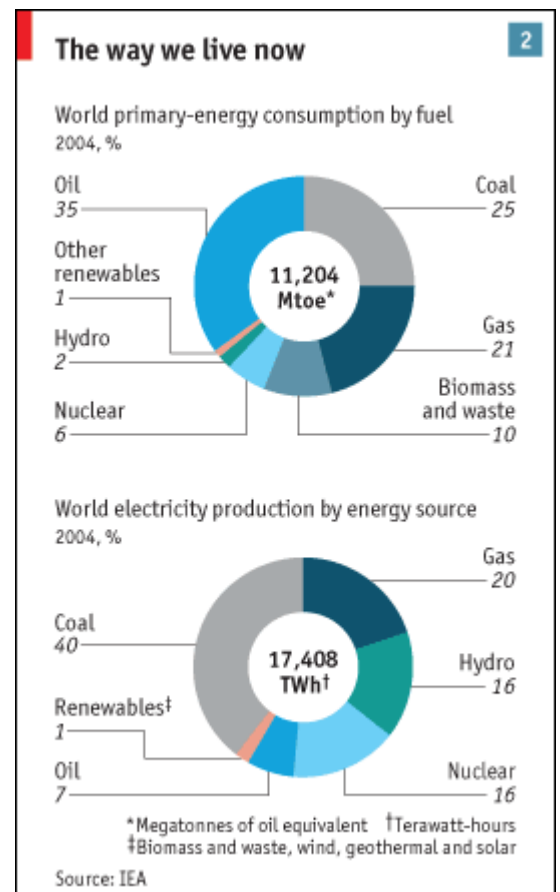
Some people complain that many existing forms of renewable energy rely on subsidies or other forms of special treatment for their viability. On the surface, that is true. Look beneath, though, and the whole energy sector is riddled with subsidies, both explicit and hidden, and costs that are not properly accounted for. Drawing on the work of people like Boyden Gray, a former White House counsel, Mr Woolsey estimates that American oil companies receive preferential treatment from their government worth more than \$250 billion a year. And the Intergovernmental Panel on Climate Change (IPCC), a United Nations-appointed group of scientific experts, reckons that fossil fuels should carry a tax of \$20-50 for every tonne of carbon dioxide they generate in order to pay for the environmental effects of burning them (hence the fears of the power-generators).

So the subsidies and mandates offered to renewable sources of power such as wind turbines often just level the playing field. It is true that some subsidies amount to unwarranted market-rigging: examples include those handed by cloudy Germany to its solar-power industry and by America to its maize-based ethanol farmers when Brazilian sugar-based ethanol is far cheaper. Others, though, such as a requirement that a certain proportion of electricity be derived from non-fossil-fuel sources, make no attempt to pick particular technological winners. They merely act to stimulate innovation by guaranteeing a market to things that actually work.

If the world were rational, all of these measures would be swept away and replaced by a proper tax on carbon—as is starting to happen in Europe, where the price arrived at by the cap-and-trade system being introduced is close to the IPCC's recommendation. If that occurred, wind-based electricity would already be competitive with fossil fuels and others would be coming close. Failing that, special treatment for alternatives is probably the least bad option—though such measures need to be crafted in ways that favour neither incumbents nor particular ways of doing things, and need to be withdrawn when they are no longer necessary.

## The poor world turns greener too

That, at least, is the view from the rich world. But poorer, rapidly developing countries are also taking more of an interest in renewable energy sources, despite assertions to the contrary by some Western politicians and businessmen. It is true that China is building coal-fired power stations at a blazing rate.



But it also has a large wind-generation capacity, which is expected to grow by two-thirds this year, and is the world's second-largest manufacturer of solar panels—not to mention having the largest number of solar-heated rooftop hot-water systems in its buildings.

Brazil, meanwhile, has the world's second-largest (just behind America) and most economically honest biofuel industry, which already provides 40% of the fuel consumed by its cars and should soon supply 15% of its electricity, too (through the burning of sugarcane waste). South Africa is leading the effort to develop a new class of safe and simple nuclear reactor—not renewable energy in the strict sense, but carbon-free and thus increasingly welcome. These countries, and others like them, are prepared to look beyond fossil fuels. They will get their energy where they can. So if renewables and other alternatives can compete on cost, the poor and the rich world alike will adopt them.

That, however, requires innovation. Such innovation is most likely to come out of the laboratories of rich countries. At a recent debate at Columbia University, which *The Economist* helped to organise, Mr Khosla defended the proposition, "The United States will solve the climate-change problem". The Californian venture capitalist argued that if cheaper alternatives to fossil fuels are developed, simple economics will ensure their adoption throughout the world. He also insisted that the innovation which will create those alternatives will come almost entirely out of America.

As it happens, he lost. But that does not mean he is wrong. There are lots of terawatts to play for and lots of money to be made. And if the planet happens to be saved on the way, that is all to the good.

## Trade winds

Jun 19th 2008

From The Economist print edition

**Wind power has come of age. But to make the most of it, electrical grids will have to be overhauled**

Illustration by Ian Whadcock



ON A ridge near Toledo in Castile-La Mancha stands a row of white windmills. Literary buffs, even if they have never been to Spain, will recognise them as the ferocious giants attacked by Don Quixote, Miguel de Cervantes's fictional 17th-century hero. These days, however, they are dwarfed by legions of modern wind turbines that grind out not flour but power, helping to make Spain one of the leading producers of wind-based electricity in Europe.

Does this amount to tilting at windmills? There is no doubt that Spain's wind turbines would not have been built without assistance from the highly visible hand of a government that wanted to prove its green credentials. But wind power is no illusion. World capacity is growing at 30% a year and will exceed 100 gigawatts this year. Victor Abate, General Electric's vice-president of renewables, is so convinced that by 2012 half of the new generating capacity built in America will be wind-powered that he is basing his business plan on that assumption.

Wind currently provides only about 1% of America's electricity, but by 2020 that figure may have risen to 15%. The one part of the United States that has something approximating a proper free market in electricity, Texas, is also keener than any other state on deploying the turbines. In May, T. Boone Pickens, one of the state's most famous oil tycoons, announced a deal with GE to build a one-gigawatt wind farm—the world's largest—at a cost of \$2 billion.

What was once a greener-than-thou toy has thus become a real business (GE alone expects to sell \$6 billion-worth of turbines this year)—and one with many advantages. For example, as Lester Brown, the president of the Earth Policy Institute, a think-tank in Washington, DC, points out, a farmer in Iowa who gives up a tenth of a hectare (a quarter of an acre) of land to a turbine might earn \$10,000 a year from it (about 3% of the value of the electricity it produces). Planted with maize, the same land would yield a mere \$300-worth of bioethanol.

Moreover, wind farms can be built piecemeal, unlike most power stations. A half-finished coal-fired or nuclear power plant is a useless waste of money, but a half-finished wind farm is simply a wind farm half the size originally intended—and one that has been providing revenue since the first turbine was completed.

One consequence of this rapidly growing market is a virtuous circle of technological improvement that is pushing wind-generated electricity closer and closer to solving Google's cheaper-than-coal equation. The first turbines were cobbled together from components intended for ships. Now the engineers are borrowing from aircraft design, using sophisticated composite materials and equally sophisticated variable-geometry blades to make those blades as long as possible (bigger is better with turbine technology) and as smart as possible (a blade that can flex when the wind blows too strongly, and thus "spill" part of that wind, is able to turn when other, lesser turbines would have to be shut down for their own safety). The theoretical maximum efficiency of a turbine, worked out in the early 20th century by Albert Betz, is 59.3%. Modern turbines get surprisingly close to that, being about 50% efficient.

They are also more reliable than their predecessors. According to Mr Abate, when GE entered the turbine business in 2002 the average turbine was out of commission 15% of the time. Now its downtime is less than 3%. As a result, the cost of the energy cranked out by these turbines has come down to about 8 cents a kilowatt-hour (kWh) and is still falling.

That makes wind power competitive with electricity generated by burning natural gas. Coal power is still cheaper, at about 5 cents a kWh. But according to a study by the Massachusetts Institute of Technology (MIT), that would rise to 8 cents if the CO<sub>2</sub> from coal-fired power stations had to be captured and stored underground (see [article](#))—or, for that matter, if a carbon tax of \$30 a tonne were imposed.

The power companies that buy the turbines are also getting smarter. They employ teams of meteorologists to scour the world for the best places to put turbines. It is not just a question of when the wind blows, but also of how powerfully. A difference of as little as one or two kilometres (one mile) an hour in average wind speed can have a significant effect on electrical output. And another lot of meteorologists sit in the control centres, making detailed forecasts a day or two ahead to help a company manage its power load. For one problem with wind is that if it stops blowing, the turbines stop turning. After cutting costs, that is the second great challenge of the spread of wind power.

The third is that people do not necessarily live where the wind blows. Indeed, they often avoid living in such places. Solving these problems, though, is a task not for the mechanical engineers who build the turbines but for the electrical engineers who link them to places where power is wanted. That means electricity grids are about to become bigger and smarter.

Bigger means transcontinental, at least for people like Vinod Khosla. His analogy is America's interstate highway system, built after the second world war. The new grids would use direct, rather than alternating, current. AC was adopted as standard over a century ago, when the electrical world was rather different. But DC is better suited to transporting power over long distances. Less power is lost, even on land. And DC cables can also be laid on the seabed (the presence of all that water would dissipate an AC current very quickly). In the right geographical circumstances that eliminates both the difficulty of obtaining wayleaves to cross private land and the not-in-my-backyard objections that power lines are ugly. Indeed, there is already a plan to use underwater cables to ship wind power from Maine to Boston in this way.

## Rewiring the planet

As it happens, Europe already has the embryo of a DC grid. It links Scandinavia, northern Germany and the Netherlands, and there is talk of extending it across the North Sea to the British Isles, another notoriously windy part of Europe. By connecting distant points, this grid not only delivers power to market, it also allows the system some slack. It matters less that the wind does not blow all the time because it blows at different times in different places. The grid also permits surplus power to be used to pump water uphill in Norwegian hydroelectric plants (a system known as pumped storage), ready for use when demand spikes.

Smarter grids, however, would help to smooth out such spikes in the first place. The ability to accommodate inherently intermittent sources such as wind is only one of several reasons for wanting to do this, but it is an important one.

A smart grid will constantly monitor its load and (this is the smart bit) take particular consumers offline, with their prior agreement and in exchange for a lower price, if that load surges beyond a preset level. For this purpose, a consumer may not necessarily be the same as a customer. The grid's software would be able to identify particular circuits, or even particular appliances, in a home, office or factory. Their owners would decide in what circumstances they should shut down or boost up, and the smart grid's

software would then do the job. Water heaters and air-conditioners might stock up on heat or cold in anticipation of such shutdowns. Fridges would know how long they could manage without power before they had to switch on again.

Reducing spikes in demand that way will cut the need for what are known in the industry as “peakers”—small power plants such as pumped-storage systems that exist solely to deal with such spikes. Parts of America’s existing dumb and fragmentary electricity grid are so vulnerable to load variations that their owners think they may be able to cope with no more than about 2% of intermittent wind power. Clearly peaks will never be eliminated entirely. However, Mr Abate reckons that a combination of smart grids and gas-fired peakers should push the potential for wind power up a long way.

To prove the point, GE is collaborating with the government of Hawaii, a state which is served by a series of small, isolated grids highly vulnerable to disruption. The firm’s engineers reckon that clever grid management will allow up to 30% of local power to come from wind without any blackouts. If that improvement can be translated to the grids on the mainland, wind’s future looks assured.

## Dig deep

Jun 19th 2008

From The Economist print edition

### Carbon storage will be expensive at best. At worst, it may not work

EVEN in the most alternative-friendly future imaginable, coal is unlikely to go away. It is cheap, abundant and often local. So what can be done to make coal's use more acceptable?

One much-discussed possibility is carbon capture and storage, or CCS, which involves burying the carbon dioxide deep underground. The generating companies have high hopes of it (see chart 3). There are just two problems. No one knows if it will work (in other words, if the CO<sub>2</sub> will stay buried). And everyone knows that, whether it works or not, it will be expensive—so much so that the alternatives start to look rather attractive. The one serious attempt to investigate its use in an actual power station, the FutureGen project, based in Illinois, was cancelled in January because the expected cost had risen from \$830m to \$1.8 billion.

The "capture" part is not that hard. Carbon dioxide reacts with a group of chemicals called amines. At low temperatures CO<sub>2</sub> and amines combine. At higher temperatures they separate. Power-station exhaust can thus be purged of its CO<sub>2</sub> by running it through an amine bath before it is vented, and the amine can be warmed to release the gas where it will do no harm. Better still, the coal can be reacted with water to produce a mixture of CO<sub>2</sub> and hydrogen in which the carbon dioxide is much more concentrated than in normal flue gas, so it is easier to scrub out. What is then burned is pure hydrogen.

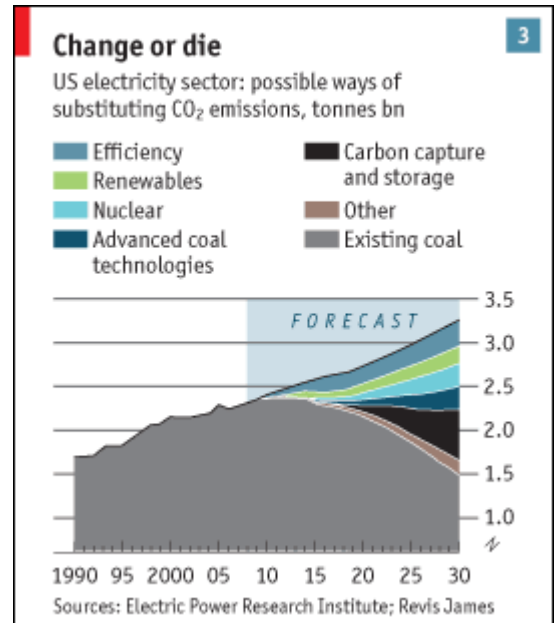
All this processing is expensive, but there is no reason why it should not work. An experimental plant in Denmark that uses monoethanolamine as the captor has been running for two years. Alstom, a French firm, has almost finished building one in Wisconsin that uses ammonia.

It is what comes next that is the problem. The disposal of carbon dioxide needs to be permanent, so a lot of conditions have to be met. To be a successful burial site, a body of rock needs to be more than 1km underground. That depth provides enough pressure to turn CO<sub>2</sub> into what is known as a supercritical fluid, a form in which the stuff is more likely to stay put. The rock in question also has to have enough pores and cracks in it to accommodate the CO<sub>2</sub>. Lastly, it needs to be covered with a layer of non-porous, non-cracked rock to provide a leakproof cap.

So far, only three successful CCS projects are under way. The Weyburn-Midale CO<sub>2</sub> project is burying carbon dioxide from a coal gasification plant in North Dakota in a depleted oil field in Saskatchewan. The Salah gasfield project in Algeria, run by BP, strips CO<sub>2</sub> from local natural gas and injects it back into the ground. And Statoil, a large Norwegian oil and gas company, performs a similar trick at two places in the North Sea. None of these projects is actually linked to generating electricity. Still, a few years ago they were touted proudly. But the touting has become more nervous, and no new projects have come on stream.

The scale of the problem is awesome. The three showcase projects each dump about a million tonnes of CO<sub>2</sub> a year. But America's electricity industry alone produces 1.5 billion tonnes, which would mean finding 1,500 appropriate sites, and nobody knows whether the country's geology can oblige. Even transporting that amount of gas would be a huge task.

As to the cost, a report published last year by MIT reckons on \$25 a tonne to capture CO<sub>2</sub> and pressurise it into a superfluid, and \$5 a tonne to transport it to its burial site. It therefore suggests that power stations which dump CO<sub>2</sub> into the atmosphere should be charged \$30 a tonne, a figure conveniently near both the middle of the IPCC's suggested carbon price and the actual price in Europe. Another report, by a



consultancy called Synapse Energy Economics, notes that American power companies are already starting to employ carbon prices in their internal accounting, using a range of \$3-61 a tonne. Again, the middle of that range is about \$30.

Such a charge, whether a tax or a system of tradable permits to pollute, would change energy economics radically. But even the most optimistic proponents of carbon capture and storage doubt it will be a serious alternative much before 2020. And by then both the physical and the political climate may look rather different.



## Another silicon valley?

Jun 19th 2008

From The Economist print edition

Illustration by Ian Whadcock



### The rise of solar energy, in one form or another

WIND power works, and will work better in the future. But wind is only an interim stop on the way to a world where electricity no longer relies on fossil fuels. The ultimate goal is to harvest the sun's energy directly by intercepting sunlight, rather than by waiting for that sunlight to stir up the atmosphere and sticking turbines in the resulting airstreams.

Fortunately, inventors love that sort of problem. Ideas they have come up with range from using the sun to run simple heating systems for buildings, deploying "reverse radiators" painted black, to the sharpest cutting edge of that trendiest of fields, nanotechnology, to ensure that every last photon is captured and converted into electricity. The most iconic form of solar power, the photovoltaic cell, is currently the fastest-growing type of alternative energy, increasing by 50% a year. The price of the electricity it produces is falling, too. According to Cambridge Energy Research Associates (CERA), an American consultancy run by Daniel Yergin, a kWh of photovoltaic electricity cost 50 cents in 1995. That had fallen to 20 cents in 2005 and is still dropping. Not RE<C (see [article](#)), but heading in the right direction.

Photovoltaic cells (or solar cells, as they are known colloquially) convert sunlight directly into electricity. But that is not the only way to use the sun to make electrical power. It is also possible to concentrate the sun's rays, use them to boil water and employ the resulting steam to drive a turbine. These two very different approaches illustrate an unresolved question about the future of energy: whether it will be generated centrally and transported over long distances to the consumer, as it has been in recent decades, or generated and consumed in more or less the same place, as it was a century ago.

### A hot tin roof

The idea of solar cells is to keep things local. They are like wind turbines, only more so, in that even a single solar panel can produce power immediately. Put a few on your roof and, if you live in a reasonably sunny place, you can cut your electricity bill. Indeed, you may be able to sell electricity back to your own power company. The problem is that at the moment you may need to take out an overdraft to pay for the solar panels, and you will not get your money back for a long time.

Many engineers, however, are working to change that. One of them is Emanuel Sachs of MIT. Some engineers look for big, exciting technological improvements in the way solar cells work, but Dr Sachs prefers incremental change. As he sees it, it is such change that drives Moore's law, that well-established description of the rapid improvement in the power of computer processors.

Moreover, the analogy is appropriate. Traditional solar cells are made of silicon, like computer chips, and for the same reason. They rely on that element's properties as a semiconductor, in which negatively charged electrons and positively charged "holes" move around and carry a current as they do so. In the

case of a solar cell, the current is created by sunlight knocking electrons out of place and thus creating holes. Dr Sachs's first contribution to the incremental improvement was a technique called the string ribbon, which halved the amount of silicon needed to make a solar cell by drawing the element (in liquid form) out of a vat between two strings. That invention was marketed by a firm called Evergreen Solar.

His latest venture, a firm called 1366 Technologies (after the number of watts of solar power that strike an average square metre of the Earth's surface), aims to follow this up with three new ideas that should, in combination, bring about a 27% improvement in efficiency. He and his colleagues have redesigned the surfaces of the silicon crystals on a nanoscale in order to keep reflected light bouncing around inside a cell until it is eventually absorbed. They have also managed to do something similar to the silver wires that collect the current. And they have made the wires themselves thinner as well so that they do not block so much light in the first place.

Dr Sachs says that these innovations will bring the capital cost of solar cells below \$2 a watt. That is closing in on the cost of a coal-fired power station: a gigawatt (one billion watt) plant costs about \$1 billion to build. The price, of course, is a different matter. As Paula Mints of Navigant Consulting, a firm based in Palo Alto, California, points out, price is set by market conditions. These—particularly the generous subsidies given to solar power in some European countries—have kept prices well above costs in recent years. Nevertheless, as chart 4 shows, the price of solar cells has fallen significantly, too.

Other researchers back a newer technology known as thin-film photovoltaics. Thin-film cells can be made with silicon, but most progress is being made with ones that use mixtures of metals, sometimes exotic ones, as the semiconductor. These mixtures are not as efficient as traditional bulk-silicon cells (meaning that they do not convert as much sunlight to electricity per square metre of cell). But they use far less material, which makes them cheaper, and they can be laid down on flexible surfaces such as sheets of steel the thickness of a human hair, which gives them wider applications.

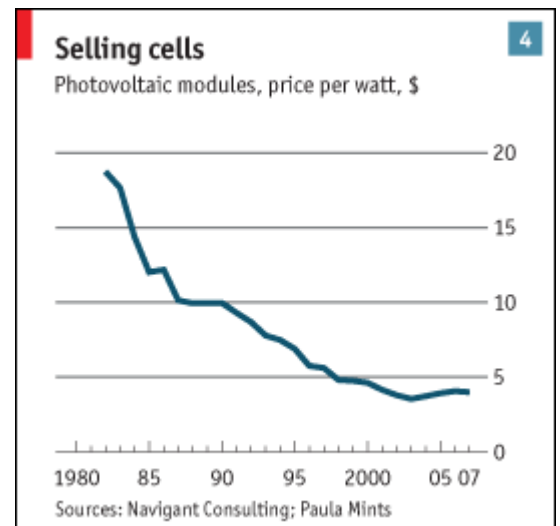
At the moment, the commercial leader in this area is a firm called First Solar, which uses cadmium telluride as the film. But First Solar is about to be given a run for its money by companies such as Miasolé, a small Californian firm, that have gone for a mixture of copper, indium, gallium and selenium, known as CIGS. This mixture is reckoned to be more efficient than cadmium telluride, though still not as good as traditional silicon. And it has the public-relations advantage of not containing cadmium, a notorious poison—though First Solar's films carefully lock the cadmium up in a way that renders it harmless.

At the moment thin-film solar cells are being packaged and sold as standard solar panels, but that could easily change. First Solar applies its films to glass, but Miasolé's boss, Joseph Laia, points out that his steel-based products are flexible and lightweight enough to be used as building materials in their own right. Greener-than-thou Californians who wish to fall in with their governor's plan for a million solar roofs, announced in 2006, currently have to bolt panels onto their houses—an ugly, if visible, show of their credentials. If Mr Laia has his way, they will soon be able to use sheets of his company's CIGS-covered steel as the roofing material itself.

Supporters of solar-thermal energy tend to look askance at solar panels. Cadmium telluride and CIGS may be cheaper than silicon, but glass and steel, on which solar-thermal relies, are cheaper still. The technology's proponents think big: square-kilometres big. They want to fill the deserts with steel and glass mirrors and use the reflected sunlight to boil water and generate electricity, then plug into the long-distance DC networks developed for wind power to carry the juice to the cities.

## Desert song

Those who worry about the political side of the world's dependence on oil will be less than delighted to find that one country thinking seriously about such systems is Algeria. With the power-hungry markets of Europe to its north, across the Mediterranean, and a lot of sunshine going to waste in the Sahara desert to its south, Algeria's government is looking for ways to connect the two. It is now building an



experimental solar-thermal power station at Hassi R'mel, about 400km south of Algiers, which if all goes well will open next year. In April work started on a similar project at Ain Béni Mathar, in Morocco, and others are in the pipeline elsewhere in north Africa. Fortunately for people like Mr Woolsey, the ex-CIA man, America has deserts of its own which are about to bloom with mirror-farms too.

There are four competing designs: parabolic-trough mirrors, parabolic-dish mirrors, "power towers" which use an array of mirrors to focus the sun's rays on to an elevated platform, and Fresnel systems, which mimic a parabolic trough using (cheaper) flat mirrors. All either heat up water to make steam, which drives a generator, or heat and liquefy a salt with a low melting point such as sodium nitrate that is used to make steam.

All four of these designs are now either operating commercially in the deserts of south-west America or are undergoing pre-commercial trials. Although the total capacity at the moment, according to CERA, is a mere 400 megawatts, this will grow tenfold over the next four years if all projects now scheduled come to fruition, and probably a lot more after that. Moreover, those plants that melt a salt are able to divert part of the heat they collect into a thermal reservoir that can keep the generators turning at night. The main objection to solar power—that it goes off after sunset—is thus overcome.

## From little acorns

The engineers clearly think they can deliver the technology. But can the technology deliver the power? A back-of-the-envelope calculation suggests that it can. Two years ago a task force put together by the governors of America's western states identified 200 gigawatts-worth of prime sites for solar-thermal power within their territory (meaning places that had enough reliable sunshine, were close to transmission lines and were not environmentally or politically sensitive). That is equivalent to 20% of America's existing electricity-generation capacity: not a bad start.

Robert Fishman, the boss of Ausra, an Australian-American company based in Palo Alto, California, reckons that his firm's Fresnel arrays combined with its proprietary heat-storage system can produce electricity for 8 cents a kWh. That matches GE's wind turbines, and mass production should bring it down further. It is not cheaper than "naked" coal (Ausra will benefit from various state governments' requirements that their power utilities buy renewable power)—but if there were a carbon tax of \$30 a tonne, or a requirement to capture and bury CO<sub>2</sub>, Ausra would be able to match the coal-fired stations' prices.

The most intriguing technology of all, though, belongs to SUNRGI, a firm based in Los Angeles. This uses mirrors to concentrate sunlight, but focuses it on a solar cell rather than a boiler. The system is said to turn 37% of the light into electricity. In April the firm claimed it would be able to produce electricity for the magic figure of 5 cents a kWh.

That claim has yet to be put to the test, and should be viewed with some scepticism until it has been. But it is a good indication of the way the field is going. Solar power now seems to be roughly where wind was a decade ago. At the moment it contributes a mere 0.01% to the world's output of electricity, but just over a decade of 50% annual growth would bring that to 1%, which is where wind is at the moment. If SUNRGI is to be believed, and the point where RE is indeed <C is close, the rise to 1% might happen even faster. After that, the sky is the limit.

## Beneath your feet

Jun 19th 2008

From The Economist print edition

### Geothermal could be hot

THE Philippines are not generally associated with the cutting edge of technological change. In one respect, though, the country is ahead of its time: around a quarter of its electricity is generated from underground heat. Such heat is free, inexhaustible and available day and night.

It is also part of a geology that sees parts of the country devastated by volcanic eruptions from time to time. The geysers that turn the generators are merely the gentlest manifestations of this volcanism. The question that exercises Jefferson Tester, a researcher at MIT, is whether it is possible to have the one without the other. The Earth's depths are, after all, hot everywhere. So if there is no natural volcanism around to bring this heat to the surface, his answer is to create controlled, artificial volcanism—what is known as an engineered geothermal system (EGS). Instead of relying on natural hot springs, you make your own.

In principle, this is easy. Drill two parallel holes in the ground, a few hundred metres apart, and carry on drilling until the rock is hot enough (say 200°C). Then pump cold water down one hole and wait for it to come back up the other at a suitably elevated temperature. The superheated water turns to steam which you use to power a generator. In Dr Tester's view, the reason this source of power is neglected is that it is invisible. Everybody feels the wind and the sun, but only miners notice that the Earth's interior is hot, so no one thinks of drilling for that heat.

Dr Tester reckons that spending about \$1 billion on demonstration projects over the next 15 years would change that. It would provide enough information to allow 100 gigawatts-worth of EGSs to be created in America by 2050, at a commercially acceptable price.

In principle, much more could be done. The recoverable heat in rock under the United States is the equivalent of 2,000 years-worth of the country's current energy consumption, according to a report he and his colleagues published two years ago. A similar assessment of Europe's heat resources from the Earth suggests that they could be used to generate as much electricity as all of the continent's nuclear power stations produce now.

### Rock-hard

Extracting this subterranean energy is not as easy as it sounds. Until the term EGS was coined, the field was known as hot-dry-rock geothermal energy, a name that encapsulates the problem precisely. A century of data collected by oil companies suggest it is impermeable rocks such as granite that are the most effective reservoirs of heat. Their very dryness increases their heat capacity. But to get the heat out you have to make them permeable. Hence the "engineered" in the new name.

Some of Dr Tester's \$1 billion would be spent working out how to drill cheaply and effectively through this sort of rock—something that oil companies tend to avoid because impermeable rocks do not contain petroleum. A lot of the money would go on finding ways to force open fissures in the granite to let the water flow from the injection hole to the exit.

The Cooper Basin in South Australia has the hottest non-volcanic rocks of any known place in the world, and Australia leads the field in exploiting subterranean heat, with seven firms snooping around the area. One of them, Geodynamics, recently completed what it claims is a commercial-scale well. And the turbines will also turn soon at an experimental non-commercial project at Soultz, in France.

If it can be made to work, EGS has got the lot. No unsightly turbines. No need to cover square kilometres of land with vast mirrors. And it is always on. Anybody got a billion dollars handy?



## Grow your own

Jun 19th 2008

From The Economist print edition

### The biofuels of the future will be tailor-made

BURIED in the news a few weeks ago was an announcement by a small Californian firm called Amyris. It was, perhaps, a parable for the future of biotechnology. Amyris is famous in the world of tropical medicine for applying the latest biotechnological tools to the manufacture of artemisinin, an antimalarial drug that is normally extracted from a Chinese vine. The vines cannot produce enough of the stuff, though, so Amyris's researchers have taken a few genes here and there, tweaked them and stitched them together into a biochemical pathway enabling bacteria to make a chemical precursor that can easily be converted into the drug.

But that is not what the announcement was about. Instead, it was that Amyris was going into partnership with Crystalsev, a Brazilian firm, to make car fuel out of cane sugar. Not ethanol (though Brazil already has a thriving market for ethanol-powered cars), but a hydrocarbon that has the characteristics of diesel fuel. Technically, it is not ordinary diesel, either: in chemist-speak, it is an isoprenoid rather than a mixture of alkanes and aromatics. But the driver will not notice the difference.

The point of the parable is this: biotechnology may have cut its teeth on medicines, but the big bucks are likely to be in bulk chemicals. And few chemicals are bulkier than fuels. Where Amyris is leading, many are following. Some small firms with new and interesting technologies are trying to go it alone. Others are teaming up with big energy firms, in much the same way that biotech companies with a promising drug are often taken under the wing of a large pharmaceutical company. The big firms themselves are involved, too, both through in-house laboratories and by giving money to universities. Biofuels, once seen as a cross between eccentric greenwash and a politically acceptable way of subsidising farmers, are now poised to become big business.

### Grassed up

The list of things that need to be done to create a proper biofuel industry is a long one. New crops, tailored to fuel rather than food production, have to be created. Ways of converting those crops into feedstock have to be developed. That feedstock has then to be turned into something that people want to buy, at a price they can afford.

All parts of this chain are currently the subjects of avid research and development. Some biofuels were already competitive with oil products even at 2006 oil prices (see table 5). The R&D effort will bring more of them into line, as will any long-term rise in the price of crude oil.

As far as the crops themselves are concerned, there are three runners at the starting gate: grasses, trees and algae. Grasses and trees are grown on dry land, but need a lot of processing. The idea is to take the whole biomass of the plant (particularly the cellulose of which a plant-cell's walls are made) and turn it into fuel. At the moment, that fuel is often ethanol. Hence the term "cellulosic ethanol" that has gained recent currency. Algae, being aquatic, are more fiddly to grow, but promise a high-quality product, oil, that will not need much treatment to become biodiesel.

One of the leading proponents of better grasses is Ceres, a firm based in Thousand Oaks, California. The species it has chosen to examine—switchgrass, miscanthus, sugarcane and sorghum—are so-called C4 grasses. These are favourites with



the biofuel industry because they share a particularly efficient form of photosynthesis that enables them to grow fast. Ceres proposes to make them grow faster still, using a mixture of “smart” breeding techniques (in which desirable genes are identified scientifically but assembled into plants by traditional hybridisation) and straightforward genetic engineering.

The chosen grasses also thrive in a range of climates. Switchgrass and miscanthus are temperate. Sugarcane and sorghum are tropical. Ceres proposes to extend their ranges still further by creating strains that will tolerate heat or cold or drought or salt, allowing them to be grown on land that cannot be used for food crops. That will make them cheaper, as well as reducing the competition between foods and biofuels.

Trees, meanwhile, are the province of firms such as ArborGen, of Summerville, South Carolina. Like Ceres, ArborGen is working on four species: eucalyptus, poplar, and the loblolly and radiata pines. It is applying similar techniques to those used by Ceres to speed up the growth of these trees and to increase their tolerance of cold. Although creating raw materials for biofuels is not this company’s only objective (paper pulp and timber are others), it sees such fuels as a big market.

Algae, too, are up for modification. One problem with them is harvesting the oil they produce. That means extracting them from their ponds, drying them out and breaking open their cells. This process is so tedious that some companies are considering the idea of burning the dried algae in power stations instead.

One firm that is not is Synthetic Genomics, the latest venture of Craig Venter (the man who led the privately funded version of the Human Genome Project). Dr Venter hopes to overcome the oil-collection problem by genetic engineering. Synthetic Genomics’s algae have been fitted with genes that create new secretion pathways through their outer membranes. These cause the algal cells to expel the oil almost as soon as they have manufactured it. It then floats to the surface of the pond, allowing it to be skimmed off like cream and turned into biodiesel. The algae are also engineered to make more oil than their wild counterparts.

Harvesting useful fuels from vascular plants, as grasses, trees and their kind are known collectively, is a trickier business. These plants are composed mainly of three types of large molecule. Besides cellulose, there are hemicellulose and lignin. Each is made of chains of smaller molecules, and all three are often bound together in a complex called lignocellulose, particularly in wood. There are many ways these long-chain molecules might be turned into fuel, but all of these processes are more complex than for algae.

5

Out of thin air

Biofuel costs compared with prices for oil and oil products, cents per litre

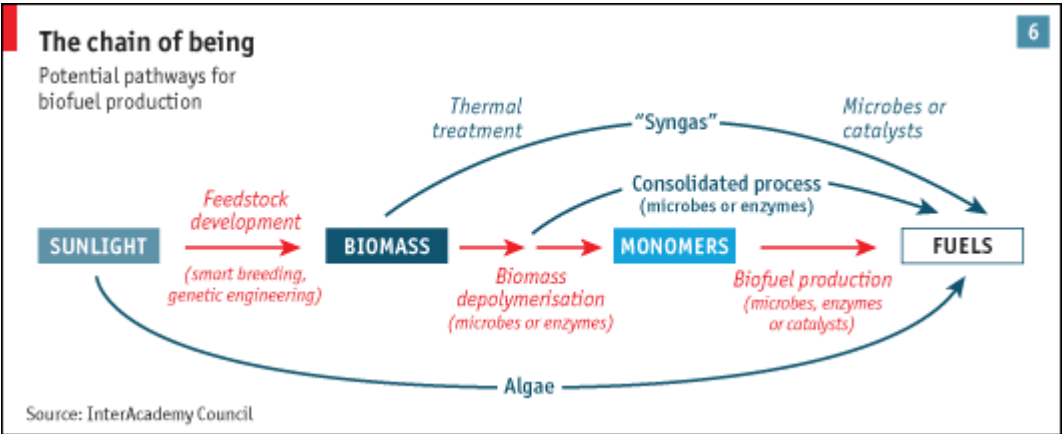
Fuel	2006
Price of oil \$/barrel	50-80
Petroleum products pre-tax price	35-60
Petroleum products retail price*	150-200 in Europe, 80 in US

Biofuel	2006	Long-term about 2030
Ethanol from sugarcane	25-50	25-35
Ethanol from maize	60-80	35-55
Ethanol from beet	60-80	40-60
Ethanol from wheat	70-95	45-65
Ethanol from lignocellulose	80-110	25-65
Biodiesel from vegetable oils	70-100	40-75
Fuels made from “syngas”	90-110	70-85

Source: The Royal Society

\*Taxes included



As chart 6 shows, turning sunlight into biofuel involves three steps, though different methods may miss out some of these steps. Algae can make the leap from start to finish directly, whereas vascular plants cannot. One way of dealing with them is to dry them and then heat them with little or no oxygen present. This is called pyrolysis and, if done correctly, results in a mixture of carbon monoxide and hydrogen



called "syngas" (short for synthesis gas). With suitable catalysts, syngas can be turned into fuel.

This is the approach taken by Choren Industries in Freiburg, Germany, and Range Fuels in Treutlen County, Georgia. In both cases the feedstock is chippings and other leftovers from forestry and timber-mills. Choren is making hydrocarbon diesel and Range ethanol. Both factories, therefore, are steps on the road to making fuel from trees. Syngas can also be turned into ethanol by bacteria of the genus *Clostridium* (a group better known for the chemical used in botox treatment). That is being done by Coskata, a firm based in Warrenville, Illinois. General Motors (GM) likes this idea so much it has bought a share of the company.

An alternative to the syngas method is to break the cellulose and hemicellulose up into their component "monomer" molecules. That is easier said than done, particularly if lignin is involved, since lignin is resistant to such conversion. The amount of coal in the world is proof of its resilience. Coal is composed mainly of lignin from plants that failed to decompose completely and were fossilised as a result.

Many firms, however, have developed enzymes that break down biomass in this way. Iogen, of Ottawa, Canada, was one of the first. Its enzymes decompose cellulose and hemicellulose into sugar monomers. (The lignin is burned to generate heat for the process.) Abengoa, a Spanish firm that is also involved in solar energy, uses this approach as well.

## Sugar and spice

Once you have your sugar, you can ferment it. These days that need not mean using yeast to make ethanol. A whole range of bugs, some natural, some engineered, can now be deployed to make a whole range of products. Amyris's souped-up micro-organisms (some are bacteria, some yeasts) turn sugar not into ethanol but into isoprenoids, at a cost competitive with petroleum-based diesel. LS9, based near San Francisco, uses a similar method but is turning out alkanes (for petrol) and fatty acids (for biodiesel). It, too, is starting to scale up production. Synthetic Genomics is doing something similar, though the firm is cagey about which fuel is being produced. In each case, however, what is made is a chemical precisely tailored to its purpose, rather than the ad hoc mixture that comes out of a refinery. The rival companies thus argue that their products are actually better than oil-based ones.

At least one firm, Mascoma, of Cambridge, Massachusetts, employs a single species of bug, *Thermoanaerobacterium saccharolyticum*, both to break down the biomass and to digest the resulting sugar. Mascoma will use both grass and wood as feedstocks. In May it signed deals with GM and Marathon Oil.

Illustration by Ian Whadcock

It is also possible to use purified enzymes to do the conversion from sugar to fuel, as well as from biomass to sugar, and at least two firms are working on applying them to the whole process. Codexis, based in Redwood City, California, has created a range of enzymes by a method akin to sexual reproduction and natural selection. Last year it signed a deal with Shell to use this technique to produce biofuels of various types. And a Danish firm, Danisco, has teamed up with DuPont to do the same thing with its own proprietary enzymes.

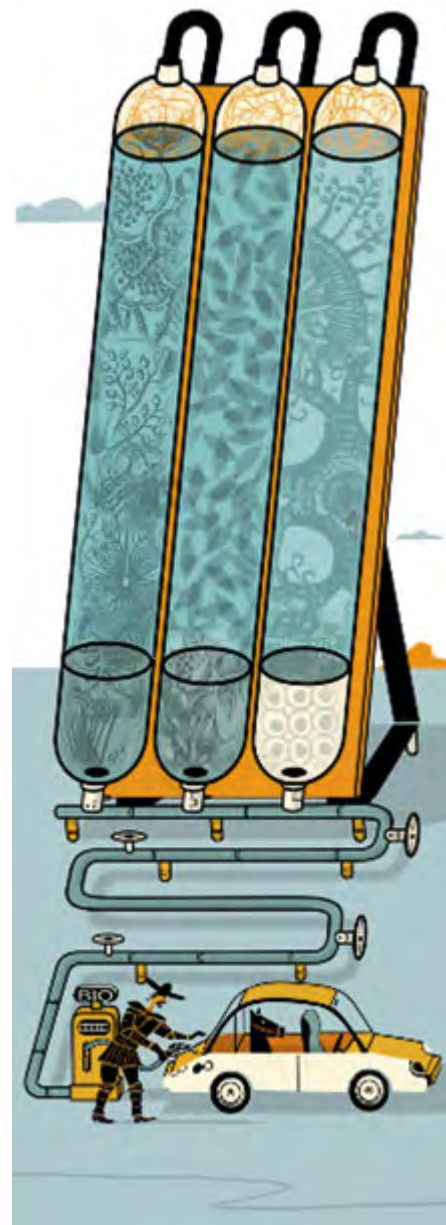
Shell is also involved in a project to turn sugar into hydrocarbons, this time by straight chemical processing. It is putting up the money. The technology (the most important part of which is a set of proprietary non-biological catalysts) is provided by Virent Energy systems, of Madison, Wisconsin.

Which of these approaches will work best is anybody's guess. But their sheer number is proof that the most radical thinking in the field of renewable energy is going on in biofuels. It is in this area that the most unexpected breakthroughs are likely to come, says Steven Koonin, BP's chief scientist. BP is backing one of the biggest academic projects intended to look into biofuels, the Energy Biosciences Institute (EBI), to the tune of \$500m, which suggests that the company's board agrees with him. The EBI is a partnership of the University of California, Berkeley, the Lawrence Berkeley National Laboratory and

the University of Illinois.

One of the people involved, Steven Chu, the head of the Lawrence Berkeley laboratory, is a man with a grand vision. This vision is of a “glucose economy” that will replace the existing oil economy. Glucose, the most common monomer sugar, would be turned into fuels and maybe even the bio-equivalents of petrochemicals—bioplastics, for example—in local factories and then shipped around the world. That would be a boon to tropical countries, where photosynthesis is at its most rampant, though it might not play so well to James Woolsey’s security fears, since it risks replacing one set of unreliable suppliers with another.

However, there is plenty of biomass to go around. A study by America’s Departments of Energy and Agriculture suggests that even with only small changes to existing practice, 1.3 billion tonnes of plant matter could be collected from American soil without affecting food production. If this were converted into ethanol using the best technology available today, it would add up to the equivalent of 350 billion litres of petrol, or 65% of the country’s current petrol consumption. And that is before specially bred energy crops and other technological advances are taken into account. If America wants it, biofuel autarky looks more achievable than the oil-based sort. And if it does not, then the world’s hitherto impoverished tropics may find themselves in the middle of an unexpected and welcome industrial revolution.



## The end of the petrolhead

Jun 19th 2008

From The Economist print edition

### Tomorrow's cars may just plug in

Illustration by Ian Whadcock



NOTHING ages faster than the future. A few years ago there was general agreement that if the internal-combustion engine ever was replaced by something clean, that something would be the fuel cell. A fuel cell is a way of reacting hydrogen and oxygen together in a controlled way and extracting electricity from the process. It was to be the precursor of what was known as the hydrogen economy, in which that gas would replace fossil fuels and power almost everything.

Leaving aside the problems of transporting and storing a light and leaky gas, what no one was very clear about was where the hydrogen itself would come from. You would have to make it from something else. That something would either be a mixture of fossil fuel and water (fuels can be reacted with steam to make hydrogen and carbon dioxide, but you still have to get rid of the carbon dioxide), or just water itself, via electrolysis.

But why bother? Why not cut out the middleman and plug your car directly into the electricity mains instead? And that, it seems, is what may happen. You don't hear much about the hydrogen economy these days. Nor fuel cells. The buzz-phrase now is "plug-in hybrid".

Plug-ins should not be confused with existing hybrid vehicles, such as Toyota's Prius, which contains an internal-combustion engine as well as two electric ones. Either sort may drive the wheels. The electric motors kick in when they can do a more efficient job than the petrol engine, but even then the electricity comes ultimately, via batteries, from burning petrol.

In a plug-in, the electricity comes from the mains, via an ordinary electrical socket. Some intermediate designs retain the idea of two sorts of engine, but the goal is that the car should be powered by electric motors alone. If the batteries run down, a petrol-powered generator will take over. (Existing batteries are too expensive to give such a car the range of a standard petrol-driven machine.) But most cars, most of the time, are used for short journeys. Gerbrand Ceder, a battery scientist at MIT, reckons that if the first 50km of an average car's daily range were provided by batteries rather than petrol, annual petrol consumption would be halved. Given that the electrical equivalent of a litre of petrol costs about 25 cents, that is an attractive reduction.

The widespread adoption of plug-ins might also reduce carbon-dioxide emissions, depending on what sort of power station made the electricity in the first place. Even energy from a coal-fired station is less polluting than the serial explosions that drive an internal-combustion engine. If the energy comes from a source such as wind or nuclear, the gain is enormous.

Beyond that, the rise of plug-ins has implications for the electricity industry itself. If they succeed, they will put an unanticipated load on the system. In fact, they may remake electricity as well as transport.

## Don't all recharge at once

That is certainly the view of Peter Corsell of Gridpoint, a company based in Arlington, Virginia. His firm hopes to make its living selling the load-management technology required for "smart grids". There are several reasons why such technology is desirable (see [article](#)). Mr Corsell goes one further: he reckons it will become essential if plug-ins arrive in force. At the moment, the grid would be unable to cope if a large number of commuters arriving home plugged in their cars more or less simultaneously to recharge them. Yet if those same cars were recharged at three o'clock in the morning, when demand is low, it would benefit both consumer (who would get cheap power) and producer (who would be able to sell otherwise wasted electricity). Such cars might even act as micro-peakers—reservoirs of electrical energy that a power company could draw on if a car were not on the road. Managing plug-ins, Mr Corsell thinks, will be the smart grid's killer application.

In sunny climes, plug-ins might also provide another use for solar cells. Google is already experimenting with photovoltaic car parks. These have awnings covered in solar cells which will shade its employees' cars and simultaneously recharge them. That is an idea which could spread. Supermarkets, for example, might find that car parks with plugs would attract customers who wanted to top up their cars. And the more opportunities there are for stationary cars to be recharged, the more likely they are to be bought.

Plug-ins are moving from idea to reality with amazing speed. General production of the Tesla, Elon Musk's new sports car, began in March (the firm is Californian, but the cars are built in Britain). The Tesla is not even a hybrid. It draws all of its power from lithium-ion batteries (the sort that power laptop computers), and it has a range of 350km. It can manage that because its price of \$109,000 buys a lot of batteries; Tesla owners are not the sort who count their pennies.

Nor is the Tesla the only sports car to go down this road. Electric motors may lack a throaty roar, but they actually do a better job than petrol engines in high-performance vehicles. They have higher torque at low revs which makes them accelerate faster. In Britain a new firm called the Lightning Car Company plans to revive the country's sports-car tradition with the Lightning GT. Mr Musk also faces competition in California, from Fisker Automotive, whose eponymous founder Henrik Fisker helped design the Tesla. (Tesla Motors is now suing Fisker for infringing its intellectual property.)

Mass-production plug-ins are not far away either, and the rising price of petrol makes them look more attractive by the day. General Motors intends to launch a plug-in hybrid called the Volt by 2010, and Toyota plans a plug-in version of the Prius. Most of the other big car firms are making me-too noises. Only Honda and Mercedes seem to be sticking enthusiastically to fuel cells. It is all very encouraging. But what would really make a difference would be a breakthrough in battery technology.

At the moment, lithium-ion batteries are the favoured variety. This kind of battery uses lithium in its ionic form (ie, with the atoms stripped of an electron to make them positive). When the battery is fully charged, these ions hang around one of its electrodes, the anode, which is usually made of graphite. During operation, the ions migrate within the battery from this electrode to the other one, the cathode, and electrons (which are negatively charged) pass between the electrodes through an external circuit. It is that current of electrons which drives the motor. The cathode may be made of a variety of materials. Cobalt oxide is traditional but expensive. Manganese oxide is becoming popular. But the future probably lies with iron phosphate, which has less of a tendency to overheat, a problem that has resulted in battery recalls in the past.

Iron phosphate certainly will be the future if General Motors has anything to do with it. GM is collaborating with A123Systems, a firm started by Dr Ceder's colleague Yet-Ming Chiang, to develop batteries with iron-phosphate cathodes for the Volt. A123's particular trick is that the iron phosphate in its cathodes comes in the form of precisely engineered nanoparticles. This increases the surface area available for the lithium ions to react with when the current is flowing, so such batteries can be charged and discharged rapidly.

The Lightning, too, is making use of nanotechnology. Its batteries, developed by Altairnano of Reno, Nevada, replace the graphite anode with one made of lithium titanate nanoparticles. The firm claims that its batteries are not only safer (graphite can burn; lithium titanate cannot), but can also be recharged more rapidly. Using a 480-volt outlet, such as might be found in a roadside service station, the job should be done in ten minutes.

Dr Ceder reckons he may be able to do even better than this. His version of an iron-phosphate battery can charge or discharge in ten seconds. It, too, could be recharged rapidly at a roadside filling station. He

reckons the process would have to be controlled to stop overheating, but a safe refill would take only five minutes. And he thinks batteries might get better still.

## **The 30,000-compound question**

At the moment the process of finding better electrode materials is haphazard, but Dr Ceder proposes to make it systematic. Over the centuries, chemists have discovered about 30,000 inorganic chemical compounds (those that are not based around carbon skeletons), almost any of which might theoretically be suitable material for an electrode. Examining the relevant properties of all of them in the laboratory is out of the question, but Dr Ceder thinks he has found a short cut. He is involved in something called the materials genome project, which takes the known properties of inorganic compounds and turns them into extremely sophisticated computer models. These models are able to calculate the quantum-mechanical properties of the chemicals they are mimicking—and they seem to get it right. When Dr Ceder has checked the predictions for hitherto untested materials by conducting real experiments, he has found that the results coincide.

The materials genome project obviously has much wider applications than battery electrodes, but that is where Dr Ceder has started. His computer is now chewing its way through the chemical encyclopedia, looking for the likeliest candidates. Watch this space.

## Life after death

Jun 19th 2008

From The Economist print edition

### Nuclear power is clean, but can it overcome its image problem?

Illustration by Ian Whadcock

IF YOU want to make an environmentalist squirm, mention nuclear power. Atomic energy was the green movement's darkest nightmare: the child of mass destruction, the spawner of waste that will remain dangerous for millennia, the ultimate victory of pitiless technology over frail humanity. And not even cheap. Well, times change. The followers of Rachel Carson and the Club of Rome in the 1960s and 1970s had not heard of the greenhouse effect, but today's greens have. And they know that nuclear reactors are the one proven way to make carbon-dioxide-free electricity in large and reliable quantities that does not depend (as hydroelectric and geothermal energy do) on the luck of the geographical draw. What a dilemma for a thoughtful tree-hugger.

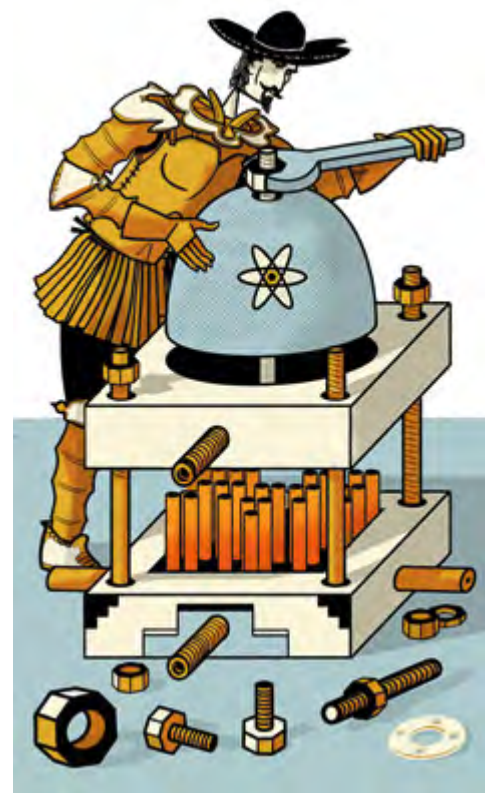
Patrick Moore, one of the founders of Greenpeace, faces no such dilemma, though. He is such a convert to the nuclear cause that he now chooses to consult for it. Cynics take him to task for that, but he makes no apology. His view of the world, shared by James Lovelock, the inventor of Gaia (the idea that the Earth itself has some of the characteristics of a living organism), is that nuclear power—which already provides 15% of the world's electricity—is the only possible way out of climate change. Mr Lovelock thinks it is probably too late anyway, and that Gaia will shake herself and be rid of the plague of humans that now infest her skin. Mr Moore thinks she can be persuaded not to, if nuclear power is applied in even larger doses.

Given the widespread concern about nuclear energy, how can that be done? Partly, the answer comes, by shifting priorities (for today's youth, climate change is what global nuclear warfare was for the baby-boomers). Partly by the fading of memories: the accident at Three Mile Island, which ended America's nuclear dreams, took place nearly three decades ago, and even the Soviet disaster at Chernobyl is more than two decades past. And partly by redefining "cheap". The Electric Power Research Institute, an American industry body, puts the cost of nuclear electricity at 6.5 cents a kWh. Not cheaper than coal's 5 cents, but cheaper than coal that has had a price put on its carbon emissions. The time, then, is ripe for a rethink.

Ernest Moniz, MIT's leading energy guru and himself a nuclear physicist, agrees. He thinks that, on the technical side at least, the key to a nuclear revival is to go from a craft-based approach, in which each reactor is a bespoke thing of beauty, to a manufacturing approach, in which modules of components are made in factories and simply bolted together on site.

The other modern desideratum, he believes, is "passive safety". This seems to be the same as what engineers used to call "fail-safe", but perhaps the marketing department no longer approves of the word "fail" getting anywhere near a reactor. What it means is that safety measures kick in automatically in an emergency rather than having to be activated. That can be something as simple as configuring the control rods that regulate the speed of a reaction so that they drop by gravity rather than having to be inserted.

Both Dr Moniz's preconditions are beginning to be met. The world's three largest nuclear-reactor firms are hoping for sales of reactors whose designs have been upgraded to be more "bolt-together" and passively safe than their predecessors. According to CERA there are plans in America alone to build 14 AP1000 Westinghouse reactors, six General Electric economic simplified boiling-water reactors, two or more GE advanced boiling-water reactors and seven of the French firm Areva's latest design, the European pressurised reactor.



## New generation

Indeed, the idea of modularity can be taken even further. Toshiba, a large Japanese engineering firm, is planning something known as nuclear batteries: factory-made sealed units with an output of 10 megawatts and a lifetime of 15-30 years. When they stop working, you simply send them back to the factory for disposal.

The acme of modular, factory-built, passively safe reactor design, however, is found in South Africa. People there have been experimenting with so-called pebble-bed reactors for decades. They hope to start building one for real in 2010. A pebble-bed reactor is fuelled by small spheres that are, in essence, tiny reactors in their own right. They are made of uranium oxide (the fuel) and graphite (a substance that slows down the flying neutrons that cause nuclear fission). Pile enough pebbles together and a chain reaction will start. Nor is any complicated pipework required to extract the heat. All you need do is run an inert gas such as helium through the pebbles and it will collect the heat for you.

The design also looks like the ultimate in passive safety because a phenomenon called Doppler broadening, which changes the speeds of the neutrons and makes them less likely to cause fission, shuts it down automatically if it overheats—though critics argue that the graphite in the pebbles is a fire hazard, and that helium is so leaky that there is a risk of air getting into the system and starting a fire.

None of these ideas deals with the question of nuclear waste. But that is largely a political problem, not a technical one. Though it sounds like a cop-out, the best answer really is to bury the stuff for the time being. That should be done in places where it can easily be recovered for reprocessing one day when technology has caught up. But it is also worth noting that buried, unprocessed waste cannot be used to make bombs.



## Flights of fancy

Jun 19th 2008

From The Economist print edition

Illustration by Ian Whadcock



### The world of energy must change if things are to continue as before

AS SAMUEL GOLDWYN wisely observed, you should never make predictions, especially about the future. As far as predicting the technological future is concerned, people almost always either overshoot or undershoot. Holidays on the moon by 2000, as forecast in the 1960s? Not exactly. A quick hop out of the atmosphere, courtesy of Virgin Galactic, is the limit of that vision for the moment. On the other hand, a seemingly boring way of linking computer files full of data on subatomic physics can turn into a world wide web of information in half a decade.

In retrospect, this special report will no doubt be proved to have been guilty of both over- and undershooting. It has begun from the premise that big changes are afoot in the energy field, and has tried to pick the technologies most likely to be important. Some outcomes are mutually exclusive. A truly electric car would eliminate the need for biofuels, except, perhaps, in aircraft. Truly cheap biofuels might price electric cars out of the market. A breakthrough in the capture and storage of carbon dioxide would bring coal back into play with a vengeance. Geothermal may be better than solar. Solar may be better than wind.

The report has ignored some technologies because they will not get anywhere. Fusion, that favourite of fantasists, is 30 years away, as it always has been and probably always will be. Giant satellites collecting sunlight and beaming the energy to Earth as microwaves are an idea of heroic proportions, but enough sunlight gets through the atmosphere to make them irrelevant. Other technologies may make a contribution, but only on a small scale. The idea of floating platforms that capture wave energy is technically feasible, but it seems more trouble than building wind turbines. Tidal power works but, even more than hydro, it depends on geography. And the idea of liberating hydro from geography with small, free-standing turbines may have local applications, but maintaining such turbines is far more trouble than taking a spanner to a windmill.

All sorts of wacky but intriguing ideas are being looked into, such as flying turbines that would exploit the high winds of the jetstream. And so are perfectly sensible ones, such as ultracapacitors for storing electricity, that are now niche products but might suddenly blossom, to the embarrassment of prophets. Maybe, too, the hydrogen economy will rear its head again—but only if a way can be found of storing the gas easily and at high density. That would require a material that can absorb large volumes of it. One for Dr Gerber's materials genome project, perhaps.

This report has also ignored the question of efficiency, except in the special context of smart grids. The idea of "negawatts", as improvements in efficiency are sometimes known, has always been a favourite of greens. But there is too often a gleeful hairshirtedness to their pronouncements, which helps to explain

why high-profile changes such as the introduction of energy-efficient light bulbs are viewed cynically by so many people.

In any case, a lot of efficiency improvements just happen in the background, as part of most businesses' continuous search for cost savings. Car engines, for example, are much more efficient than they used to be, and are likely to become still more so. The reason that American cars are such gas-guzzlers is not that their engines have got worse but that the cars themselves have got heavier.

Besides, as Robert Metcalfe, the networking guru, said at a recent conference: "You are not going to conserve your way out of the problem." The need to keep doing the same thing—consuming energy in ever larger quantities—is a force for change. Price, political security and environmental pressures are all pushing in the same direction. How quickly that change will happen is hard to tell, but it is wise to remember the power of compound interest.

## Sunlit uplands

In some fields, such as information technology, change happens suddenly or not at all. In others, such as energy, it can happen gradually to start with, but as the curve accelerates upward there comes a point where things move very fast. Ten years ago wind turbines were marginal. Now they are taken seriously, and in another decade they may contribute as much as a fifth of the world's electricity.

The same could happen to solar energy, which is ten years behind wind, and geothermal, with a 20-year lag. Whether it would happen faster if carbon emissions were charged for at an honest price is a moot point. Certainly, that is the only way to bring about the widespread adoption of carbon-dioxide capture and storage. But for the rest, the best way might, paradoxically, be what exists now: a threat that is real enough for electricity generators to price it into their future calculations without affecting their existing plants.

The lack of new coal-fired capacity creates a real opportunity for alternatives, among them renewables. But the lack of an actual carbon price still keeps the cost of existing electricity down, and thus the necessary incentives in place to make Google's cheaper-than-coal equation a reality.

If and when such cheaper alternatives arrive, the markets of Asia will open and Mr Khosla, an Indian-born American, will see the fruits of his adopted homeland roll out into his native country. It will be a long time before King Coal and Queen Oil are dethroned completely, but their reigns as absolute monarchs of all they survey are coming slowly to an end.

## Sources and acknowledgments

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## Offer to readers

Jun 19th 2008

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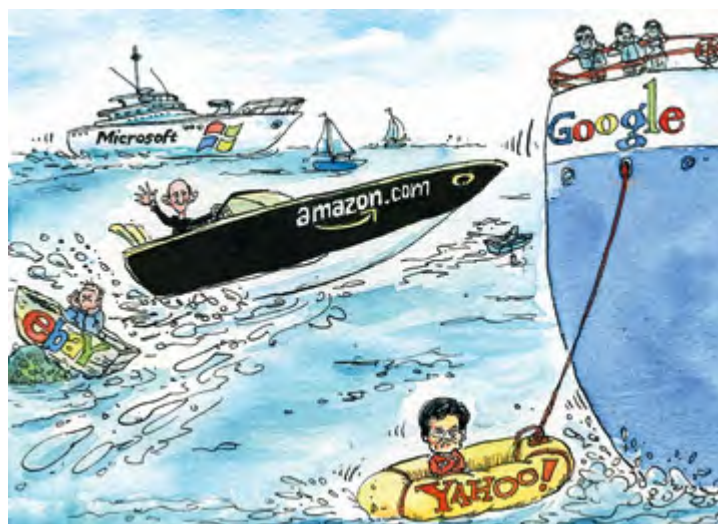
## Yahoo!, eBay and Amazon

## The three survivors

Jun 19th 2008 | SAN FRANCISCO  
From The Economist print edition

## What the diverging fates of Yahoo!, eBay and Amazon say about the internet

Illustration by David Simonds



AND so Yahoo! survives. The internet company—which, at the age of 14, is one of the oldest—appears in the end to have rebuffed Microsoft, the software Goliath that wanted to buy it. It has done so, in part, by surrendering to Google, the younger internet company that is its main rival. In a vague deal apparently designed to confuse antitrust regulators, Yahoo! is letting Google, the biggest force in web-search advertising, place text ads next to some of Yahoo!'s own search results. Google thus controls some or all of the ads on all the big search engines except Microsoft's. Yahoo! lives, but on the web's equivalent of life support.

Yahoo!'s descent, first gradual then sudden, during this decade marks a surprising reversal of the fates of the only three big internet firms to have survived since the web's earliest days. Back in 1994 Jerry Yang and David Filo, truant PhD students at Stanford, started to publish a list, eventually named Yahoo!, of links to cool destinations on the nascent web. Around the same time, Jeff Bezos was writing his business plan for a website, soon to be called Amazon, for selling books online. The following year, Pierre Omidyar, a French-born Iranian-American, put an auction site on the web that would become eBay.

Even as hundreds of other dotcoms fell by the wayside at the turn of the century, these three made it through the great internet crisis and have since prospered, to varying degrees and at different times. Their fates have reflected the evolution of the web as a whole, and now suggest its future direction. For many years eBay and Yahoo! made more money than Amazon, which, as a capital-intensive retailer, struggled longer with losses and then made profits at lower margins (see chart). And yet, says Pip Coburn of Coburn Ventures, an investment adviser, Yahoo! is now drifting and eBay is a washed-up quasi-monopoly, whereas Amazon finds itself at the internet's cutting edge.

Yahoo! set out to be a new sort of media company. To that end, it hired a Hollywood mogul, Terry Semel, during the internet depression in 2001. He had a backward-looking idea of the media business. Yahoo!'s site became a tawdry strip mall, with big, flashing advertisements next to users' e-mail inboxes. The firm slipped into a mindset of product silos, with the teams for the home-page, e-mail, finance and sports pages competing with each other and for advertisers, and confusing users.

Yahoo!'s bigger mistake was not to see how the web was changing. Google, also founded by two truant Stanford PhD students, became the leader of a new generation with a vision that web search, rather than Yahoo!'s "portal" approach, would guide surfers around the internet. Google valued simplicity, interactivity and the collective intelligence gleaned from the web and its users. Yahoo! belatedly tried to keep up and bought sites such as [flickr](#) for photo-sharing and [del.icio.us](#) for bookmark-sharing, but it "put them in the curio cabinet" without transforming the company, says Jerry Michalski, a technology consultant. Yahoo! was "so bent on being the future", he says, that it "missed the new". Mr Yang replaced Mr Semel last year, but the crisis was so grave that he has now ended up surrendering to Google.

EBay took a different route, recognising that its business—in effect, online yard sales—had potential network effects: in short, that sellers and buyers would flock to whichever site already did the most trading. The firm became a de facto monopoly, but with that came a culture that left many of its users disenchanted, and growth slowed. Some measures, such as the number of new listings of items for sale, are even in decline. Buyers and sellers increasingly rely on Google's search model, or online social networks, to find things and one another. EBay's new boss, John Donahoe, is not facing a crisis like Yahoo!'s—but neither does he appear to have a big idea for the future.

## Amazon'

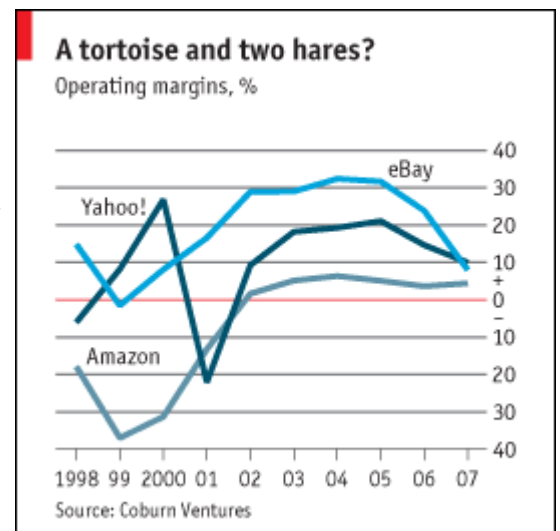
Amazon, by contrast, has found exactly that. It is the only one of the three that has been led continuously by the same man, its founder Jeff Bezos. A caricaturist's dream, Mr Bezos has an outsized neck, striking pate and an infectious guffaw that spreads enthusiasm. And, unlike his peers at the other two firms, Mr Bezos has stuck to his original vision—while adding two new ideas as they presented themselves.

His original plan, in the 1990s, was to become "Earth's biggest river" of merchandise, from books and toys to electronics and almost anything else that can be shipped. He tried and failed to become a rival to eBay in auctions. But then Mr Bezos realised that the same online store-front and logistics system that worked for Amazon itself could also work for others. So he added an entirely new category of customers: third-party sellers, who account for 30% of all items sold through Amazon's site today. They range from one-man-bands to huge retailers, such as Target.

Then, about four years ago, another, and potentially bigger, idea struck Mr Bezos. "We had built this huge infrastructure internally for us," says Mr Bezos. "We thought, surely others out there could use the same infrastructure services." That infrastructure consists of Amazon's prodigious numbers of server computers and storage discs, rivalled in scale by only a few other firms in the world, including Google. So Mr Bezos again added an entire category of customers: firms that wanted to rent computing capacity—from processing to storage to database functionality—from Amazon over the internet, rather than build their own data centres in a warehouse. It has signed up over 370,000 customers, ranging from web start-ups to the *New York Times*, which used Amazon's infrastructure to digitise much of its archive.

Almost by accident, Amazon has thus "backed into cloud computing," as Mr Michalski puts it, using the buzzword for today's next big thing: the trend among both consumers and companies to compute and store data on the internet, rather than on a local computer. If there is a leader in the cloud, it is Google. But Amazon is now right up there. Better yet, although Amazon overlaps with Google in the cloud, it does not rival it directly. Google mostly offers entire applications, such as word processing or spreadsheets, to consumers through their web browsers. Amazon offers services to programmers so they can build and run their own applications.

So there they are. Jerry Yang is still boss of Yahoo!, although angry, restive shareholders may oust him at their annual meeting on August 1st, and his top lieutenants are leaving in droves. John Donahoe is looking hard for a purpose that will enable eBay to survive another decade. And Mr Bezos is right where he wants to be.







## eBay's legal woes

## Handbagged

Jun 19th 2008 | PARIS  
From The Economist print edition

**The online auctioneer braces itself for some court decisions in France**

HIGHFASHIONX, a retailer on the American website of eBay, an online auctioneer, is offering 52 handbags, belts, necklaces, rings and pairs of shoes from the house of Chanel. It also displays something even more exclusive: an apology from Chanel's lawyers. The luxury-goods firm had accused HighFashionX of selling fakes, but its wares were in fact all genuine.

The incident is part of a war between luxury-goods firms and eBay over counterfeit goods—a war that is about to intensify. On June 30th a French court will rule on a lawsuit brought against eBay in 2006 by LVMH, the world's biggest luxury-goods firm, which is demanding damages of €20m (\$31m). Further rulings are expected on court cases brought against eBay by Dior Couture, a fashion house, and by L'Oréal, a cosmetics firm. For its part, eBay is launching a campaign in Brussels against firms that, it says, are stifling the development of e-commerce in Europe.

A few years ago sellers on eBay were mostly private individuals flogging second-hand goods. But now eBay is increasingly used by professional retailers selling new items. Many of them sell fakes. LVMH claims that out of 300,000 products labelled Dior and 150,000 Louis Vuitton handbags offered on eBay in the second quarter of 2006, fully 90% were fake.

"We don't make any money from sales on eBay," says Cheryl Solomon, general counsel of the Gucci Group, "but we have to tell people that their bag isn't real, that we can't help them get their money back, and we become the bad guys." A cottage industry of authenticators has sprung up around eBay and other online auction sites: [MyPoupette.com](http://MyPoupette.com), for instance, charges consumers a fee to examine online photos of handbags and other items before they submit their bids.

eBay takes a small percentage of the value of every sale on its site, as well as a flat fee, and thus earns money from counterfeits sold on its site as well as genuine items. Mindful of its reputation, eBay has stepped up its efforts to fight counterfeiting in recent years. As well as its peer-review system, which allows buyers to rate sellers, it has another scheme, "Verified Rights Owner" (VeRO), which invites brand-owners to notify it of counterfeit goods. Suspect items are then taken off eBay's websites until their provenance can be proven, usually within hours. But luxury-goods firms say VeRO is not enough. They want eBay to take more responsibility for rooting out fakes. The Union des Fabricants in Paris, an anti-counterfeiting group, wants eBay to use its database of names and postal addresses of sellers to identify and ban professional counterfeiters.

"We have 2,000 employees worldwide fighting fraud," says Alexander von Schirmeister, head of eBay in France, "and if we have to do much more, you have to wonder to what extent our business model can exist." With the support of Meglena Kuneva, European commissioner for consumer protection, and three members of the European Parliament, eBay will argue in Brussels that the internet has been unfairly portrayed by luxury-goods firms as the root cause of counterfeiting. It wants the European Commission to rewrite the rules on "selective distribution", which allow manufacturers to control how their products are sold online. The rules, written before the internet took off, are now stifling e-commerce in Europe, eBay argues.

But however much support eBay can drum up in Brussels, it is unlikely to distract attention from the forthcoming decision in LVMH's lawsuit. On June 4th eBay lost against Hermès, another French luxury-goods firm, which had sued it for selling counterfeit handbags. Now other firms are waiting to hear the results of the LVMH, Dior and L'Oréal cases against eBay, says Marc Antoine Jamet, chairman of the Union des Fabricants. If eBay loses, he says, "we will probably see many more brand-owners filing similar suits."



## Biotechnology

## Getting personal

Jun 19th 2008 | SAN DIEGO  
From The Economist print edition

**A genomics merger highlights the potential for personalised medicine**

FANS of genomics have long argued that decoding genomes one person at a time would revolutionise health care by leading to “personalised” medicine, in which doctors match the treatment to the individual. As the cost of gene sequencing has fallen, firms have rushed to offer genetic tests directly to consumers, often raising grand expectations. There now seems to be a backlash. Doctors have grouched about being bypassed. Punters have grown wary as they realise that most such tests do not provide conclusive evidence of the risk of disease. This month officials in California even sent warning letters to marketers of such genetic tests, as part of an effort to rein in this unruly new industry.

So will the genomics revolution now grind to a halt? No. But it may well unfold in more conventional ways than enthusiasts of “disruptive innovation” had hoped. To see why, consider this month's acquisition by Invitrogen, a biotechnology firm based near San Diego, of Applied Biosciences (AB), a bigger firm also based in California, in a deal valued at over \$6 billion. The combination will be a force in the market for gene-sequencing equipment (which AB makes) and the related products and services (Invitrogen's bread and butter) that complement the hardware.

Steven Burrill, an industry expert, thinks the deal is a clever move since it will let Invitrogen adopt the “cheap razor, expensive blades” model pioneered by Gillette. The combined firm can hook customers with affordable hardware, then profit from Invitrogen's high-margin laboratory products. Gregory Lucier, Invitrogen's boss, says he “likes the analogy” and AB's president, Mark Stevenson, says the aim is to boost sales of reagents and other consumables, which he says make up some 75% of the combined firm's revenues.

Another factor behind the deal is the hint of a shakeout in the industry. Roche, a Swiss pharmaceutical giant, now controls 454 Life Sciences, a gene-sequencing outfit, and recently made a hostile takeover of Ventana, a diagnostics firm. Mr Stevenson says AB's acquisition is step in the consolidation of a fragmented industry.

The deal also suggests that, for all the hype around direct-to-consumer genomics, personal genomics may make its first profits in the less glamorous area of medical diagnostics. So argues Drew Fromkin, chief executive of Clinical Data, a firm that uses the gene-sequencing products of AB and its rivals. If you want to make money from genomics, it is better to tell doctors and hospitals whether patients will respond to particular drugs than to peddle tests direct to consumers. According to Kalorama, a market-research firm, medical diagnostics was a \$42 billion industry in 2007 and is expected to be worth \$56 billion by 2012. Siemens, GE and other multinational firms have been buying smaller firms of late (though GE's \$8 billion takeover of Abbott Laboratories, an American diagnostics firm, eventually fell apart).

Even though direct-to-consumer genomics has been over-sold, personalised medicine still holds great promise. Mr Burrill thinks that as Americans are asked to pay for more health care out of their own pockets, they will welcome techniques, like personal genomics, which can help them avoid diseases by, say, a change of diet. The cost of decoding someone's genome is likely to fall from \$50,000 now to \$100 by 2015 or 2020, making all kinds of things possible—but only if the value of the genetic information is far greater than it is today. “So what, even if prices tumble to \$10 per genome?” asks Mr Fromkin. “Quality of information is what matters to those paying the bills.”

## Beer

**A bid for Bud**

Jun 19th 2008

From The Economist print edition

**Can Anheuser-Busch fend off InBev's uninvited advances?**

IN AN ideal marriage the two partners complement each other, as well as having some things in common. They can live together harmoniously. And together they are better able to face life's pitfalls and pleasures. InBev, the world's second-biggest brewer by volume, thinks a merger with America's Anheuser-Busch, maker of Budweiser and the global number three, would be just such a perfect union.

Anheuser controls almost half of the American beer market, the world's most profitable; InBev's American operations are tiny—which is one reason why it was prepared to offer \$46 billion in an unsolicited bid on June 11th. But InBev, based in Belgium and run by Brazilians, is big in Europe and Latin America, where Anheuser-Busch is hardly present. Both have sizeable operations in China. They are already cohabiting happily in America, where Anheuser imports Stella Artois and other InBev brands, and in South Korea and Canada, where Budweiser has become the top-selling brand with InBev's help.

As well as having a neat geographical fit, the two brewing giants would also enjoy better terms when negotiating over the price of hops, barley, glass and aluminium, which have been rising fast. Together they would be better placed to confront flagging sales in the developed world, thanks to a more extensive distribution network. And they would be able to hedge growing but volatile markets in developing countries against the steadier but slow-growing American market.

Carlos Brito, InBev's chief executive, at first tried to make a friendly offer for Anheuser. But August Busch IV, scion and boss, is determined not to sell the business, started by his great-great grandfather, to a bunch of uninvited foreigners. He has embarked on talks with Grupo Modelo, the Mexican maker of Corona beer, about a combination that would make Anheuser too big for InBev to swallow. But the Busch family owns only about 4% of Anheuser-Busch, less than Warren Buffett's Berkshire Hathaway, which owns 5%. Many directors on Anheuser's board are close to the clan, but they will find it hard to reject the deal without being accused of neglecting their duty to the other shareholders.

Mr Brito is going to great lengths to drum up support for his bid. On June 17th, in an open letter in a local newspaper to the people of St Louis, Anheuser's hometown in Missouri, he promised not to shut any of its 12 American breweries. He also said that the headquarters for the North American division of the new firm would remain in St Louis, and that its name would evoke the Anheuser-Busch tradition. He even went to Washington, DC, to meet Claire McCaskill, a senator from Missouri, and other politicians. He was not warmly welcomed: Ms McCaskill vowed to do "everything in her power" to stop the deal. But neither she nor the Busch family can do much to block the deal.

Trevor Stirling at Bernstein, an investment-research firm, says the chances of a white knight joining the battle are slim. A bid from SABMiller, the world's largest brewer, would run into antitrust concerns, and Heineken and Carlsberg, two European brewers, have stretched balance sheets after completing a joint takeover of Scottish & Newcastle at the end of April. (That deal, like InBev's bid, was inspired by a desire for greater scale and access to new markets, particularly Russia.)

Perhaps the greatest obstacle to a takeover, says Brian Sudano of Beverage Marketing, a consultancy, is the difference in corporate cultures. Mr Brito, known as a cost-cutter, thinks savings from the deal could be worth \$1.4 billion a year by 2011. Anheuser, by contrast, pours \$500m a year into advertising for Bud alone.

If it goes ahead, the deal would be the biggest consumer-goods merger since the \$57 billion marriage in 2005 of Procter & Gamble and Gillette, and would create the world's fifth-biggest consumer-goods firm. Such giants must strike a balance between exploiting their scale and nurturing distinctive local brands. And, despite the recent wave of consolidation, beer remains a local business.



## Technology and climate change

## Computing sustainability

Jun 19th 2008

From The Economist print edition

## How computers can help to cut carbon emissions

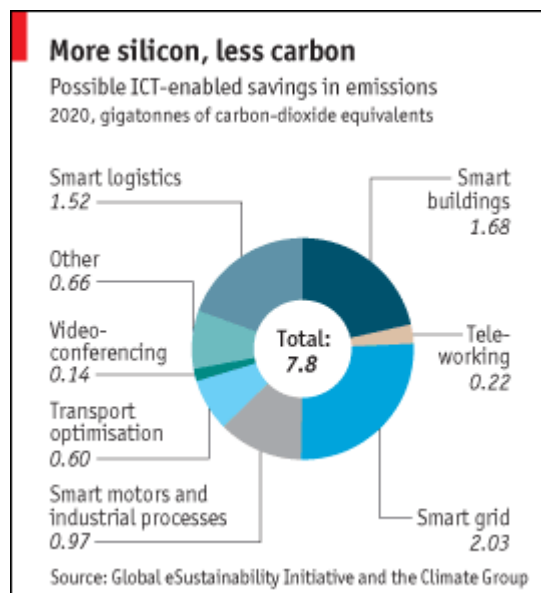
HOW much computing can mankind afford? That is a question the computer and telecoms industries hate to hear. They do not see themselves in the same dirty league as airlines or carmakers, sources of huge amounts of carbon dioxide, but instead as part of the solution. In a pre-emptive strike, a group of technology firms calling itself the Global eSustainability Initiative (GeSI) has joined the Climate Group, a non-profit environmental club, to examine how information and communications technologies (ICT) affect climate change. Their research, released on June 20th, confirms that ICT could in fact do much to reduce greenhouse-gas emissions—but not in the way you might think.

When it comes to emissions, ICT is on a par with aviation. In 2007, according to the report, the world's electronic gear (including PCs, their peripherals, telecoms networks and devices, and the warehouses of corporate machines known as data centres) produced 830m tonnes of CO<sub>2</sub>—about 2% of total emissions from human activity. Even with technology that uses energy more sparingly, this is expected to grow to 1.4 billion tonnes by 2020. Although PCs, mobile phones and networks will account for most (56%) of this, emissions from data centres will grow the fastest.

Yet these numbers look much less frightening if, in the words of the study, ICT's "enabling effect" is taken into account. The study calculates that ICT could help to reduce emissions in other industries by 7.8 billion tonnes by 2020, or five times ICT's own footprint. Perhaps the best-known of these enabling effects is to replace face-to-face meetings, which require carbon-belching air travel, with low-emission alternatives such as videoconferencing. John Chambers, the boss of Cisco, a big maker of network equipment, says his company has reduced its carbon footprint by 11% by using its own "telepresence" gear. It also means higher productivity and reduced "wear and tear" on executives, he adds.

But reducing transport emissions using technologies such as videoconferencing and teleworking turn out to be some of the smaller enabling effects—saving a potential 140m and 220m tonnes of CO<sub>2</sub> a year in 2020 respectively (see chart). Using computers to improve logistics (for example, by planning the routes of delivery vehicles more efficiently) could save 1.5 billion tonnes; using data networking inside a "smart" electrical grid to manage demand and reduce unnecessary energy consumption could save 2 billion tonnes; and computer-enabled "smart buildings", in which lighting and ventilation systems turn themselves off if nobody is around, could save 1.7 billion tonnes.

None of this will be easy. The industry can supply the hardware and software, but the bigger problem is the "wetware"—people, economics and politics. The right skills are often scarce. Incentives are lacking for businesses to invest in carbon-reducing technology. There need to be new technical standards. For transport, power grids and buildings to become more efficient, there must be rules on how, for instance, refrigerators should talk to electricity meters, and thermostats to heating systems. But the internet shows that when common standards are agreed on in an industry, great things can happen. The technology industry's contribution to tackling climate change may come from its standards bodies as much as its clever gizmos.







**Bollywood and Hollywood****Close encounters**

Jun 19th 2008 | DELHI  
From The Economist print edition

**An Indian giant comes to Steven Spielberg's rescue**

BOLLYWOOD'S songs are hummed in Morocco, its films are rented in California and its stars are cast in wax at Madame Tussauds in London. But India's new money has an appeal even its melodrama cannot match. On June 17th the *Wall Street Journal* reported that one of India's biggest conglomerates, Anil Ambani's Reliance group, was in talks to form a film-making partnership with Steven Spielberg's DreamWorks studio, owned by Viacom, a media giant. Mr Spielberg and David Geffen, the studio's co-founders, want to regain their independence when their contract with Viacom ends, and are looking for funding.

Reliance had already announced at the Cannes Film Festival in May that it would provide funding to eight film-production houses headed by some big Hollywood stars. It hopes to develop some 30 scripts, and put perhaps ten into full production. "We are re-enfranchising the talent," said Amit Khanna, chairman of Reliance's entertainment division and a talented Bollywood songsmith, last month. "We will allow full creative freedom, but we won't allow creative anarchy. Sometimes they just go crazy."

New to Hollywood, Reliance has been in entertainment in India for only three years. Domestic rivals are impressed—and intimidated—by its boasts (it wants to be worth \$10 billion) and its bulk (it has 69 films and 20 TV stations in the works, and owns 45 radio stations and India's biggest cinema chain). Its foreign ties will not help much at home: Hollywood films claim only a 3-5% share of India's box-office, according to Ernst & Young. Mr Spielberg's second "Indiana Jones" film was temporarily banned in India, not least for showing an Indian eating chilled monkey brains.

What the Indian industry lacks is not films, stars or directors, but "global marketing and distribution muscle", argues Vanita Kohli-Khandekar, author of "The Indian Media Business". Reliance may be able to help with its venture into film downloads, [BIGFlix.com](http://BIGFlix.com), and its purchase of 251 cinemas in America. In Norwalk, California, for example, you can watch the Tamil film "Dasavathaaram" for \$2.75 this weekend.

Viacom, meanwhile, has its own designs on Reliance's turf. In 2007 it entered a joint venture with Network18, an Indian television and film company, aiming to become a "multimedia entertainment powerhouse". Its next release, "Singh is Kinng", was filmed in Australia and Egypt, as well as the Indian state of Punjab, and features a song by Snoop Dogg. It is not exactly "Schindler's List". But at least no one eats monkey brains.

## Airbus

## Gathering clouds

Jun 19th 2008

From The Economist print edition

## An aviation giant faces difficulties on several fronts

Reuters



A troubled giant

"WHEN sorrows come, they come not single spies, but in battalions." Senior managers at Airbus and its parent company, EADS, would no doubt agree with Claudius's rueful observation in "Hamlet". The past couple of months have been torrid ones for the company that, with Boeing, dominates the market for large civil aircraft. The high price of oil means that many of the firm's shell-shocked airline customers are cutting capacity and reviewing their orders for new planes. Meanwhile, Airbus itself is groaning under the burden of meeting its costs in strong euros while being paid for its aircraft in weak dollars. And a crucial part of its "Power 8" restructuring plan—the disposal of several factories—has been put on hold by the global credit crunch.

Even the one piece of good news in the past few months—a surprise victory over Boeing in the \$40 billion battle to provide the US Air Force with a new generation of tankers—is now in jeopardy. On June 18th America's Government Accountability Office in effect reopened the contest by agreeing with Boeing that the air force had mishandled the bidding process.

If all that were not bad enough, managers are also having to spend time and energy countering the mounting accusations of insider trading levelled at 17 of them and two "core" EADS shareholders, Lagardère and Daimler. In April, after a long investigation and much leaking, the French stockmarket watchdog, the Autorité des Marchés Financiers (AMF), confirmed the conclusion of a preliminary report that it had found evidence of "massive" insider dealing. It alleges that executives and shareholders sold shares in late 2005 and early 2006 in the knowledge that the A380 programme was in deep trouble after inconsistent software in French and German factories had led to mistakes in the design of the aircraft's wiring harnesses. After the firm admitted trouble with the wiring on June 13th 2006, shares in EADS fell by 26%.

Since then the pressure on the managers has increased. The AMF has now passed its evidence to the French judicial authorities, and on May 29th preliminary charges were filed by two investigating judges against Noël Forgeard, the co-chief executive of EADS at the time of the disputed share-dealing. Hopping onto the bandwagon of the company's persecutors, two law firms in America filed suit on June 13th against EADS executives, Lagardère and Daimler. Investors worry that even if all the charges are rebutted, the distraction will only add to the risks Airbus faces.

In the circumstances, confidence at Airbus might be expected to be at a low ebb. But the mood is defiant. Despite the agonies of the airlines, the firm reckons its cushion of orders will allow production to stay at today's levels for several years—even if some customers reduce their commitments. Nor is Airbus panicking over the failure to sell its factories. It admits to being over-ambitious about the selling price, but insists that there are still plenty of potential buyers. But there is outrage within Airbus at its treatment by the AMF. There is a strong feeling that the AMF is grandstanding—appealing to French prejudices against well-heeled executives, and serving the political agenda of President Nicolas Sarkozy, who made abolition of share options a campaign issue last year.

As for the allegations themselves, Airbus insiders argue there are a number of weaknesses in the AMF's case. The first is that the AMF has attached great importance to the divergence between analysts' forecasts in the autumn of 2005 and a more downbeat three-year operational planning document prepared at the same time by Airbus—for internal consumption only. Those familiar with the document say that the discrepancy had nothing to do with the A380's hitches, but stemmed from conservative assumptions about the dollar/euro exchange rate and the rate of aircraft deliveries across the whole Airbus range during the period.

Airbus insiders are adamant that the scale of the A380's wiring problems did not become apparent until June 2006. One member of the executive committee recalls that when Charles Champion, the A380 project director, gave his twice-monthly progress report it always contained a long list of worries. The one which stood out in early 2006 was whether the plane would pass the 90-second-evacuation test, which was due to take place in March. When 873 passengers exited the plane in 77 seconds without a mishap, managers were heartened. By contrast, when Mr Champion revealed the wiring problems in early June and went on to explain how they would probably delay deliveries, it was, according to someone present, "a shock to everyone in the room".

People within Airbus also point out that in November 2005, when the largest sale of shares took place, 1,200 managers sold stock—far too many to be "insiders" with access to information denied to ordinary shareholders. They argue that the sale was prompted not so much by worries about the A380 as by the long upswing in EADS' share price and the common knowledge that several of the core shareholders, including BAE Systems, Britain's largest defence contractor, wanted to sell.

There is gloomy acceptance within Airbus, now run by Tom Enders, that "the drama will continue for some time," as one senior manager puts it. But there is also confidence that, when the French judges conclude their investigation, "the outcome will be nil." Unfortunately, the same cannot be said of what Mr Enders calls the "life-threatening" weak dollar.

## Face value

## Enter the quiet giant

Jun 19th 2008

From The Economist print edition

## Long the nearly man of American finance, Bob Willumstad hopes to revive AIG

AIG

HE WAS, until this week, arguably the greatest financial-services chief executive who never was. In 2002, when Bob Willumstad was picked as president of Citigroup by Sandy Weill, his longtime boss, it was widely deemed to be his anointment as heir-apparent. A year later, however, Mr Willumstad was passed over for the top job in favour of Chuck Prince, whom Mr Weill considered better placed to deal with the financial giant's post-dotcom regulatory woes. After a couple of years as operations chief Mr Willumstad threw in the towel, saying he wanted his own shot at running a big public company. Offers trickled in, but nothing materialised. He wound up at another financial giant, American International Group (AIG), the world's largest insurer, but only as non-executive chairman. And had it not been for the credit crunch he might have seen out the rest of his career in that job, his potential unfulfilled.



On June 15th Mr Willumstad was hastily installed as chief executive of AIG, following the forced resignation of Martin Sullivan after only three years at the helm. The change comes at a perilous time for the company, though for the 62-year-old it may yet prove to be a prime turnaround opportunity. AIG's undoing has been its bulging book of credit-default swaps, written to protect clients holding mortgage-linked securities. As this credit soured, AIG was hit by a wave of write-downs, sending it deep into loss and forcing it to raise \$20 billion of fresh capital. Shareholders, outraged by this reckless departure from AIG's core business of property, casualty, vehicle and life policies, demanded a shake-up. None was more vocal than Mr Sullivan's predecessor, Hank Greenberg, who turned AIG into a global powerhouse with annual revenues of \$100 billion during his 37 years at the top, before being edged out amid an accounting probe in 2005.

In sacking Mr Sullivan, the board has finally shown that it grasps the extent of the firm's problems. And its choice of replacement suggests that it believes only a big-hitter can overcome them. Mr Willumstad comes with a pedigree few can match. He played a big part in assembling Citi, smoothing over difficult takeovers, such as that of Associates First Capital, a subprime lender, and sometimes leading negotiations, including the swapping of Citi's asset-management arm for Legg Mason's broking business. But he was also good at the less glamorous stuff: he made the global consumer division one of Citi's main engines of profit, largely thanks to tight cost control.

He seems to have ruffled very few feathers along the way. Former colleagues put this down to a combination of unobtrusiveness and honesty. "He's quiet but very effective," says Jamie Dimon, chief executive of JPMorgan Chase, who worked alongside Mr Willumstad at Citi. "You get the truth with him. There's no political agenda." Many Citibankers had hoped he would return to take the top job when Mr Prince resigned last November. (The board approached him but eventually plumped for Vikram Pandit.) These qualities set the "quiet giant", as the six-foot-three Mr Willumstad was once dubbed, in contrast to the blokeish Mr Sullivan and the imperious Mr Greenberg. Known as a consensus-builder, he is not given to impetuosity—unless you count donning an Elvis Presley wig at his 55th birthday party. But he knows time is against him. He has launched a 90-day review of all group operations, including its scrutiny of financial controls, promising that there will be "no sacred cows".

Might the man who helped build America's largest bank now dismantle its largest insurer? Some think that, like Citi, AIG has become too complex for anyone to run. Candidates for divestment could include part or all of the consumer-finance, capital markets, aircraft-leasing or fund-management businesses—though the last of these fits well with AIG's insurance operations. Mr Willumstad was certainly not shy about selling bits of Citi. But he remains a believer in the financial-supermarket model. And he is wise enough not to sell in a market trough unless he has to. For all the tough talk, "the big cows will probably

stay on the farm,” says Andrew Kligerman, an analyst with UBS.

## Board senseless

In the meantime, a host of other problems are weighing on the firm. Mr Willumstad must restore AIG's credibility in the financial markets: as recently as January, it was saying losses would be modest and it had too much capital. He also has a credibility problem of his own, having presided over the board as the subprime exposure grew more toxic. Just a month ago he called Mr Sullivan the “right guy” to lead the firm out of trouble. Internal morale needs lifting, too: like the wealth managers at banks such as UBS and Merrill Lynch, AIG's actuaries are seething that their relatively healthy business is subsidising huge losses in the smaller financial-products group. And Mr Willumstad will have to try to limit the damage from recently launched regulatory probes into the way those swaps were valued.

But perhaps most difficult will be navigating the increasingly choppy waters of insurance markets. The property-and-casualty industry—which AIG and Berkshire Hathaway dominate in America—is entering a downturn. With stockmarkets languishing, life insurance and annuities may suffer, too. AIG has suffered heavy losses on its investment portfolio. For all his skill at managing a financial conglomerate, Mr Willumstad has little hands-on experience of insurance. Nor is his background in the sort of derivatives that are causing AIG such agony. He is unlikely to get much leeway from large shareholders, especially the influential group that pushed for a completely fresh face at the top—and they will not be thrilled that the firm's battered share price continued to fall in the days after his appointment. But if he can pull off his first—and, in all likelihood, last—stab at running a financial colossus it will have been worth the wait.

## Robots

## Nothing to lose but their chains

Jun 19th 2008 | MUNICH

From The Economist print edition



AFP

### Robots are getting cleverer and more dexterous. Their time has almost come

TITAN is a bit of a hulk. It can lift a BMW into the air with just one arm, swing it around and then set it down again in exactly the same spot with barely a quiver. Moving cars is a piece of cake for the world's strongest robot. Built by KUKA, a large German robot-maker, Titan lifts 1,000kg and with its arm extended is as tall as a giraffe. It works out by moving huge concrete structures, steel-castings and pallets loaded with glass.

At just 1.4 metres in height, Partner Robot is a wimp—but its talent is versatility, not strength. Made by Toyota, Partner Robot is humanoid. Rather than being bolted to the floor like Titan, it can walk on two articulated legs. One version can even run a little. Instead of a single giant limb, it has two arms each with four delicate fingers and a thumb. With a violin tucked under its chin, Partner Robot can make a decent fist of the tune to “Land of Hope and Glory”. If you give Partner Robot a shove, its sense of balance is good enough to stop it from falling flat on its expressionless face.

As different as these two machines are, they share a common ancestor: the industrial robot. The first factory robots appeared in the 1960s. They could do only simple, monotonous and mundane things, like moving objects from one production line to another—they were drudges, like the slaves Karel Capek described in 1920 in the play that coined the term from the Czech word *robota*, or “forced labour”. By the 1990s factory robots had become adept at cutting, milling, welding, assembling and operating warehouses. The cost of industrial robots has also fallen sharply against the cost of people (see chart), which has helped to boost their numbers to more than 1m worldwide. Most of them are built in Europe and Japan, with about half at work in Asia.

Today, thanks to the relentless increase in the power of computing, the latest robots are being fitted with sophisticated



systems that enable them to see, feel, move and work together. Robot engineers call this “mechatronics”: the union of mechanics, optics, electronics, computers and software. Some factory robots are now smart enough to be released from their safety cages to work among humans. And as they become cleverer and more dexterous, they are starting to move from factories to offices and homes.

A robot is defined not by its appearance, but by how it is controlled. The more automated it is and the more it can determine its behaviour, the more likely it is to count as a robot. Many single-function service robots are already familiar. They could be vacuuming the floor, cutting the grass or guarding your property while you are away. In some clinics transport robots ferry around paperwork and medicine; or they may be cleaning the office windows. Thousands of robots are also enrolled in the armed forces where they defuse bombs, fly reconnaissance and attack missions in Iraq and Afghanistan, and meander under the sea. They do not look at all human: most are blobs on wheels or, if they are airborne, they may look like insects. But they are robots nonetheless.

Partner Robot is a guess at what a multi-skilled service robot may one day look like, but for the time being it lives in a laboratory. There is a lot of work to do before it and other humanoid machines, like Honda’s ASIMO, can be sent to earn their living in the outside world. Even now, humanoid robots greet people or guide them through exhibitions, but they are curiosities rather than something for people to buy and use at home. Eventually, advanced humanoid robots will escape from the laboratory. Indeed, Toyota and Honda expect domestic robots to become a huge market in the future, with machines working as a family helper.

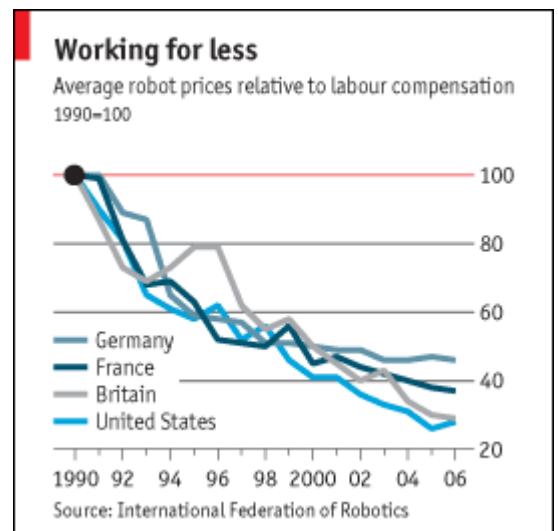
Until humanoid robots are mass produced, robotic blobs, arms and devices that resemble spiders will pave the way. A lot more of these are coming to work in offices and homes, and some will do more than one thing. That, at least, was the message broadcast loud and clear last week at Automatica, a two-yearly robotics trade fair held in Munich. Among a bewildering array of robots that can now do most jobs in a factory there were also machines that could fly, fetch, carry, talk and even perform surgery (see [article](#))—a far cry from the factory drones of 50 years ago. Four trends were on show: robots are rapidly becoming more responsive, cheaper, simpler to program and safer. Take each in turn.

## See me, feel me

Aptly for Munich, home of the Oktoberfest, the fair introduced Roboshaker, an automated bartender, created by PAAL, a German company that specialises in packaging systems. Roboshaker, based on a small robot made by Japan’s FANUC, can mix a fair cocktail and clear up afterwards. Whenever it picks up a can of drink to add to the ingredients, it examines the lid with a camera so that it can work out where to find the ring-pull. PAAL knows very well that Roboshaker is not about to replace the *mädchen* serving armfuls of frothing beer. Its job is to demonstrate just how much more capable robots become when they have machine vision.

Vision gives robots the power not only to do more in factories, but also to spread into other industries, such as the food and drinks business, which struggles to find people to do lots of boring, repetitive and unpleasant jobs. Robots with machine vision check to see that bottles and jars are filled to the right level, that the tops and caps fit, that the right labels are stuck on (and neatly, mind). They can recognise and sort pretty much anything extremely accurately and rapidly. Robots put chocolates into a box, sort apples, make salads and wield knives in chilly abattoirs, butchering carcasses without having to take a rest or visit the toilet. Robots even work in bakeries, slicing cakes—because they are more accurate than people and if you make thousands of cakes a day, all those wasted crumbs add up.

Robots are also gaining a sense of touch. Sensors can analyse the surface of materials and, using the amount of resistance they show, work out the force to apply to an object. Giving robots touch allows them to be gentle and to handle things that come in many shapes and materials. Different grippers may be needed for different jobs, and instead of using several robots, some machines now automatically swap hands; for instance choosing flat paddles to lift a box onto a production line and then hands with fingers to pick up small things to put into the box.





Robots need this flexibility now that production managers are having to cope with increasingly varied product lines in their factories. Even the car industry, which pioneered factory robots and which still accounts for some 60% of their use, now makes different models on the same assembly line. The carmakers want to tailor each vehicle to a customer's order, so they are buying robots that can recognise different models and adapt accordingly.

Then there are more ingenious ways of helping robots navigate their surroundings. Even though the arms of industrial robots can twist and turn like a contortionist, they have limitations. When spot-welding, for instance, a robot has to touch the metal with an electrode. This can be awkward inside complicated structures such as the shell of a car. Lasers, however, can be aimed to weld a join from a distance. Comau, an Italian robot specialist, now produces a 3D remote-laser welding system that helps make the new Fiat 500. It transmits a laser beam through an optical cable to a robot, which angles lenses and mirrors in the end of its arm to aim the laser towards the parts that need welding. Using a laser, the robot can make highly accurate welds and position itself for each one a lot faster than it could if it were spot-welding in the normal way.

Big, sophisticated robot systems used on car-production lines can cost millions of dollars. One reason for the high costs of automation in the past is that the price of a robot could sometimes count for only a quarter of the total cost of installing and maintaining it, according to Martin Hägele, who heads SMERobot, a European Union-backed initiative to develop robots for small and medium-sized companies. But now costs are coming down. Robots are continuing to get cheaper—a medium-sized robot able to stack goods onto pallets now goes for about \$50,000. And the cost of installing and maintaining them is falling as they become better adapted.

"Some companies think robots are too big, too costly and can only be justified with high-volume manufacturing," Mr Hägele says. "But robots can now be made that are flexible and much quicker and easier to program."

The falling cost of computing power makes it practical to give robots features like vision, touch and awareness, says Charlotte Brogren of Sweden's ABB Robotics. The producers that are part of the SMERobot initiative are starting to make light robots small enough to sit on a workbench. When the job is done, they can be picked up and moved somewhere else. That may appeal to carpenters and small engineering firms.

Different sorts of low-cost robots are also emerging that do not look at all like the bulky beams of factory robots. This type of robot contains rigid frames and tubes that use linear motors to slide and swing tools into position for welding, cutting, gluing and assembly. The robot can easily be taken to bits and moved to the next job in another part of a factory.

Such robots are useful in foundries that cut and grind components. These processes often have to be done by hand, because production volumes in small firms are too low for automation. They are expensive, because the law protects workers from the long-term injury caused by vibrations, restricting the hours they can work. The new frame-type robots are flexible and cheap enough for smaller foundries to buy, reckons Peter Haigh, in charge of R&D for Castings Technology International, a British consultancy. "When you have installed robots, you also tend to design things to use them more effectively, which increases their return on investment."

A lot of effort is going into making robots easier to program. "If we want to sell more robots, we need to make robots easier to use," says Jürgen Schulze-Ferebee, of KUKA. His company was one of the first to introduce PC-based programming, instead of the specialised code that only the engineering departments of big firms could understand. Some robots are also set up from hand-held devices called "pendants", which can often program more than one robot at the same time. Robots are getting better at co-operating with each other: in some car plants a big robot now lifts a small one inside the vehicle to assemble components.

Robots are also learning how to understand direct instructions. Some can be "led by the nose"—when an operator moves the arm of a robot around to show it what to do. The software is intuitive, so the robot can describe a perfect circle, say, if the operator shows it just a few points. Some robots also respond to speech.

## **Obey the law**

If robots are to be widely used in offices and homes, they must be safe. They need to learn Isaac Asimov's first law of robotics: a robot may not injure a human being or, through inaction, allow a human being to come to harm. Many robots today are treated like wild animals, caged behind security fences. The working area is often called a robot "cell", and nobody can enter it until the machine is switched off. This is for a good reason: a heavy, blind robot arm swinging heedlessly from one position to another could kill anyone in its path.

Making robots safer means giving them more sense of their environment. If the doors to their cells open and someone wanders in they must slow down or stop. Vision and touch are improving fast enough for the cage soon to be removed.

At that point, robots could help a carpenter, or an assembly worker on a production line. Toyota already uses a partly automated robot to lift a 50kg dashboard into a car, which enables a single human worker to position and install it. "One of our goals is to move robots from the factory to the home without any safety fence," says Toru Miyagawa of Toyota.

The next task will be to write programs that meet Asimov's second law—that a robot must obey orders given to it by human beings, except where such orders would conflict with the first law. The third law asks a robot to protect its own existence so long as that does not conflict with the first or second law. When robots are safe and aware of their surroundings, they will start to encroach on complicated, unstructured places such as offices and houses. Eventually, sophisticated multi-task service robots should be able to comply with all three of Asimov's laws and fulfil many of science fiction's promises.



AFP

**Highly strung**

These service robots may be humanoid—after all, they will be working in an environment designed for humans. But then again, many may continue to assume entirely different forms. As with industrial robots, the first service robots to enter production will be shaped by their job.

For instance, it makes sense for a robot that carries someone to look like a wheelchair. A robot chair could be told where to go. It would know how to steer itself without banging into anyone. Later this year Toyota aims to put two-wheeled robotic chairs, able to stabilise themselves, into a Japanese shopping centre and some of its company hospitals. They look a bit like large Segways.

A few other service robots are already making their way into the wider world, and they do not look human either. Care-O-Bot is a single-armed robot that rolls along on spherical wheels. It is a butler, fetching and carrying, working appliances and making telephone calls. It is built by Germany's Fraunhofer Institute with parts from SCHUNK, a robotics specialist, and is the type of service robot that is closest to production. Care-O-Bot can sidle up to Roboshaker, fetch a drink and serve it on a silver salver. But, if you value your ears, don't ask it to play the violin.

**Robot surgery****Tiny, careful cuts**

Jun 19th 2008 | MUNICH

From The Economist print edition

**Keyhole surgery is cut out for robots**

BRAIN surgery calls for the most accomplished hands, but even neurosurgeons are now turning to robots for help. In May, in the first operation of its kind, Garnette Sutherland of the University of Calgary Faculty of Medicine used a robot, called neuroArm, to remove a tumour from a young woman's brain.

NeuroArm, which Dr Sutherland helped develop, works with an MRI scanner for microsurgery. A surgeon sitting at a workstation manipulates a set of joystick-type controls while watching video and other images. Robots are more precise with a scalpel or laser than a person could ever be. And they can enter the body through a small "keyhole" incision no bigger than 2cm (0.8 inches), which means that surgery is less invasive. That improves the prognosis and speeds convalescence.

Surgeons, unassisted by robots, can carry out minimally invasive surgery alone, using long slender instruments that are inserted through a small cut. But it is extremely testing, partly because it is hard to co-ordinate movements and the surgeon has no direct contact with the tissue under the knife. Small robot arms, however, use force-feedback sensors to give surgeons the "feel" of what is happening. A pair of robots usually carries the surgical instruments, while a third relays images through an endoscope.

Robot-assisted operating systems are gaining in popularity. Intuitive Surgical, a Californian company that leads the market, now has more than 800 of its da Vinci robots in hospitals around the world, inserting heart valves and cutting out cancers.

Robots should soon be able to perform cardiac surgery without the trauma and the potential risk of breaking open the chest and plugging the patient into a heart-bypass machine. A team of researchers at Germany's DLR Institute of Robotics and Mechatronics believe their new robotic-surgery system will be able to operate directly on a beating heart. They are using a new lightweight robot called MIRO. This can follow the motion of the heart muscle as it contracts. Meanwhile, the endoscope captures "a virtually stationary image" so that the surgeon can focus on a heart that appears to have stopped—but is actually beating as normal.

## Short-selling

## Nasty, brutish and short

Jun 19th 2008

From The Economist print edition

Illustration by Satoshi Kambayashi



**The life of a short-seller is a hard one—especially when markets turn sour and people look for someone to blame**

IT IS difficult being a short-seller. Most shareholders and managers agree that you are an important part of an efficient stockmarket—until you dump shares in their company. Then things can turn nasty. “We appreciate that, asshole,” barked Enron’s chief executive, on a public conference call, to a suspected short-seller who had complained about the lack of a published balance sheet. Sometimes bears need even thicker skins. In 1995 Malaysia’s finance ministry reportedly proposed caning as a punishment for abusive shorting.

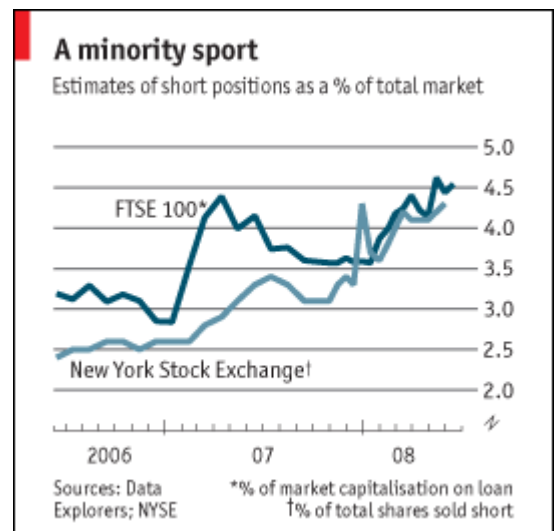
Since markets turned sour last year, plenty of financial firms, from Bear Stearns and Lehman Brothers in America, to Babcock & Brown and Macquarie Group in Australia, have seen increased shorting. A few have grumbled about unfair speculation. In February MBIA, an embattled bond insurer, complained to a congressional committee that “self-interested parties have gone to substantial effort to undermine the market confidence that is critical to MBIA’s business”. Yet the regulatory response was muted until Britain’s Financial Services Authority (FSA), a City watchdog, abruptly announced new disclosure rules for anyone short-selling the stock of companies in the delicate process of issuing shares to raise capital. If market abuse does not stop with this new regime, due to come into force from June 20th, the FSA will take further steps. Since it intervened, British banks raising emergency capital have seen their shares rise.

A reaction against short-selling often follows big stockmarket declines. Congress held hearings in the United States after the crashes of 1929 and 1987, some Asian governments imposed restrictions after the regional crisis in the late 1990s, and America’s Securities and Exchange Commission (SEC), the FSA and other national regulators investigated allegations of abuse after September 11th, 2001.

However, since the 1970s the best-known official studies in the West have shown that short-selling is broadly a force for good, aiding price discovery and preventing shares from becoming overvalued. That conclusion is supported by academic research. After examining the run-up to the crash of 1929, Owen Lamont of Yale University and DKR Fusion, a hedge fund, found that the more investors wished to short-sell a stock, the more overvalued it proved to be. In another study of American firms since the late 1970s, Mr Owen found that companies that attack short-sellers, with belligerent statements or harsher tactics, are likely to go on to underperform the wider market.

In reality, short-selling is far from being financial black magic. It is a difficult strategy to pull off, because in the long run stockmarkets tend to rise. It is also a minority activity: only 4.3% of shares on the New York Stock Exchange had been sold

short at the end of May (see chart). Data for London are less transparent, but the best proxy is the level of shares being lent (to bet on a share price falling, short-sellers often borrow stock and then sell it). According to Data Explorers, a research firm, only 4.5% of the FTSE 100 index's value is out on loan. Many short sales are innocuous attempts to hedge other positions. Unlike going long, actively betting against a share price involves red tape and runs the risk of unlimited losses (since a share price can, in theory, rise for ever, whereas it cannot fall below zero). The best bears, says Jim Chanos, of Kynikos Associates, the world's biggest short fund, are not bullies but "financial detectives", scrutinising companies. The short-seller that infuriated MBIA's management, William Ackman of Pershing Square Capital Management, was certainly vocal, but nobody doubted that he had done his homework.



If short-selling is generally beneficial, does it face hurdles?

America introduced the "uptick rule" in 1938, aiming to act as a "circuit-breaker" by forcing short-sellers to execute above the price level of the last reported market trade. It has recently scrapped this rule, which short-sellers argue was largely symbolic, and it remains in place at only a few of the world's big stock exchanges. Both the SEC and Australian regulators are examining "naked short" positions, in which a fund sells shares it has not yet got in its hands, gambling that it can borrow some before the trade is settled. Still, regulators' concerns about naked shorting mainly reflect the risk to settlement, rather than to the integrity of large companies' share prices. Finally, almost all countries (although not Britain) require aggregate short positions in individual stocks to be disclosed.

None of these restrictions impose a really onerous burden on short-sellers. Compared with them, the FSA's intervention is heavy handed. Forcing funds to disclose short positions if they exceed 0.25% of the capital of a company in a rights issue is far more stringent than the obligations long positions face—and probably bureaucratic too. But it is the FSA's threat to "take further measures" if need be by, say, limiting stock lending during rights issues, that has really spooked short-sellers.

The regulator says that "market abuse" may have driven the share prices of banks near or below the offer price for new shares, putting pressure on the underwriters of the rights issues to buy the new stock. Yet market abuse, which the FSA has defined as including insider trading, spreading false information, or deliberately distorting share prices, is usually pursued by prosecuting offenders, not restricting types of activity. And although short-selling was certainly taking place in London, the FSA has yet to show that the level of activity was great enough to dominate trading and thus distort the banks' share prices. Data Explorers estimates that the stock on loan for HBOS, a big British bank, has been fairly constant at about 7% of its market value since it announced its rights issue.

All of which suggests that the FSA wanted to ensure banks can successfully raise capital. That is a worthy objective—assuming those banks are solvent—but it may have been better done by other means. The banks could have issued new shares at a bigger discount without, at least in theory, damaging their shareholders. And the underwriters could have stepped up to the plate. The FSA says its measures are temporary, and promises to conduct a review with the Treasury. But the episode has a familiar ring. Once again short-sellers have found that their business is permitted and even lauded by regulators—until prices fall and the blame game begins.

Buttonwood

## From buy-backs to sell-backs

Jun 19th 2008

From The Economist print edition

**Shareholders beware. Companies are clinging on to their cash**

Illustration by Satoshi Kambayashi



THE credit crunch is having a little-noticed effect on the stockmarket. It is reducing the supply of share buy-backs, where companies acquire their own stock with (often borrowed) cash. Will that remove a plank that has helped support share prices?

Figures from the Federal Reserve show that corporations have been easily the biggest buyers of shares since 2005; indeed households have been net sellers almost ever since the dotcom bubble burst in 2000. But the annualised pace of share repurchases by companies fell from around \$1 trillion last year to \$200 billion in the first quarter of 2008.

It makes sense, given today's markets, for companies to hang on to what cash they have, rather than hand it back to shareholders. Indeed any share-repurchase programmes still under way may be offset by share sales, not least from banks patching up their tatty balance sheets.

The supposed merits of buy-backs are complicated by what looks like a conflict between theory and practice. In theory, investors should be indifferent about whether they receive money as dividends or buy-backs (and, indeed, firms should not care how they hand over the money). In practice, however, tax alters the investor's view. If capital-gains tax rates are lower than income-tax rates (as they were in America before George Bush's tax reforms of 2003), an investor may prefer to sell his shares into a buy-back.

Executives may also prefer buying back shares to paying dividends. In normal circumstances, a buy-back boosts earnings per share, making it easier for the company to meet market estimates and for its executives to profit from their stock options. If it fails, the penalties for managers can be severe—they may even lose their jobs. In addition, buy-backs can be one-off whereas dividend payments are seen as more permanent; it is easier for a company to buy fewer of its own shares than to cut its dividend.

Whether buy-backs should boost the share price of the average company is another tricky question. Paul Marsh, of the London Business School, says studies suggest that, in the American market, the announcement of a buy-back boosts the share price by around 2%, compared with around half that in Britain.

In theory (again), it should make no difference whether a company decides to fund itself with shares or



debt. To the extent that the company issues debt to buy equity, that might indeed boost earnings per share. But the company's balance sheet would then be riskier, which should affect the multiple that shareholders are willing to assign to those earnings.

So why (apart from tax) would there be any positive effect on the shares? It is often argued that investors see buy-backs as a sign that executives believe their firm is undervalued. But in the light of today's rights issues that argument looks weak. Take HBOS, a British bank that bought back shares at an average of £10 (then worth \$20.60) each in 2007 and is now selling them at £2.75. Technically, it does not matter to investors that companies like HBOS have been buying high and selling low, since by definition the shareholders have done the reverse. However, it does suggest that executives are not necessarily the shrewdest at market timing.

And so back to the question of whether the overall market will be hurt by the decline in share repurchases. Mr Marsh argues that the causation is the other way round. Rather than the pace of company buy-backs driving the stockmarket, stockmarket conditions are affecting the pace of buy-backs.

But Smithers & Co, an economic consultancy, reckons that the decline is a bearish signal, given that the demand by companies for shares has been "the driving force" behind the stockmarkets' recovery in recent years. At the margin, it does make sense that buy-backs affect the balance of supply and demand. Without demand from companies, who else will there be to buy?

One argument of the bulls is certainly looking threadbare. Going by its dividend-yield, Wall Street has looked pricey for some time, offering a meagre income of just 2%. That did not matter, said the bulls, given that investors were also getting their money in the form of buy-backs. With no net buy-backs, they will have to come up with another line of reasoning.

Another debate that may revive is whether executives should always hand over their spare cash to investors. True, it stops managers from doing stupid things with the shareholders' money. But the cash you have given away in the good years is much harder to get back from a cash-constrained public when times turn bad. Just ask the banks.



## Investment banks

## Sachs appeal

Jun 19th 2008 | NEW YORK  
From The Economist print edition

## Regulation may hurt Goldman Sachs more than the markets seem able to

FOR anyone hoping this would be the week when Goldman Sachs's mortality was exposed, it must have been crushing. Net income in the second quarter—a period that included the Bear Stearns debacle—fell by a mere 11% from last year's solid pre-crunch showing, beating expectations by a mile. It looked all the better for being sandwiched between Lehman Brothers' \$2.8 billion loss and a sharp profits fall at Morgan Stanley (see chart). This produced a spectacle rare these days: analysts raising their profit estimates for an investment bank.

Goldman is the beneficiary of a flight to quality. Its prime brokerage, which finances trading by hedge funds, posted record revenues as questions arose about other broker-dealers' strength as counterparties. It also saw a sharp rise in assets under management. The underwriting business was strong, too, largely thanks to the rush by writedown-saddled banks to raise new capital. (Fifth Third, a large regional bank, joined the queue this week.)

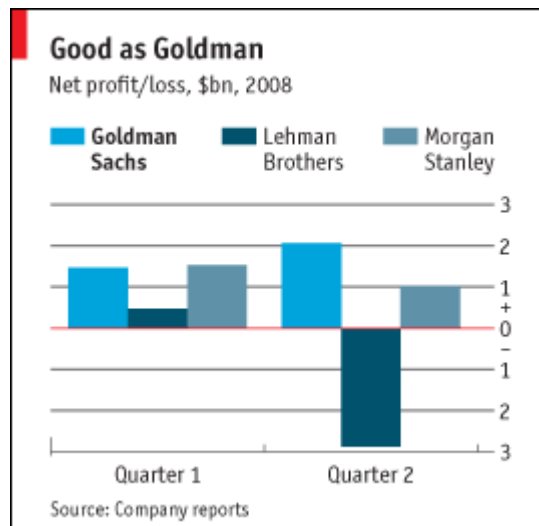
The seeds of this outperformance were sown before the crunch. Goldman saw trouble coming early and began hedging its mortgage book at the start of 2007, six months before the market turned. This allowed it to sell assets while others were still happy to buy them. It was also an early commodities bull.

As a disciple of fair-value accounting, moreover, Goldman was very conservative in "marking", or valuing, its holdings of illiquid assets. As some markets recover slightly, it is now reaping gains: virtually all of the securities Goldman sold in the latest quarter fetched prices higher than their valuation on its books, David Viniar, its chief financial officer, told analysts. He revealed relatively little else, a luxury Goldman can afford because it is under less pressure than rivals to provide more data. Lehman's earnings presentation lasted 48 minutes, Goldman's 10.

With most of its peers reeling, Goldman is well placed to leap on opportunities. Mr Viniar hinted at the possible growth in the bank's "level-three" assets (the most illiquid sort) as it snaps up distressed debt. Goldman agreed this week to take on the assets of a defunct structured investment vehicle, or SIV. In another show of chutzpah, it plans to increase staff this year, even as others cut back.

It is not all going Goldman's way. One sign of fallibility was a \$500m hedging loss on leveraged loans. Its results would have looked less good (though still beaten expectations) without some one-off gains. A longer-term worry is the tougher regulation investment banks can expect, especially curbs on their leverage, now that they have access to Federal Reserve cash. As a firm built on trading prowess, Goldman has more to lose than its peers. It has already cut its leverage, though only grudgingly and, it stresses, in response to pressure from shareholders and regulators rather than its own reading of its businesses.

All in all, though, Goldman remains an enviable outlier. Not only are its investment bankers weathering the storm, but its analysts, so often in tune with their trading-floor colleagues, have unparalleled power to move markets—as this week's pessimistic opinion of regional banks showed. Mr Viniar said the firm's managers are in two minds, one obsessed with defensive risk management, the other with aggressive risk-taking. They may feel torn, but for the moment they continue to get the balance just about right.





## Activist investors

## Derailed?

Jun 19th 2008

From The Economist print edition

## A hedge fund is hurt when a bitter rail dispute ends up in court

AP

AFTER laying siege to several big European firms, including ABN AMRO, a now-dismembered bank, Chris Hohn has got into trouble with CSX, an American railway company. Financially, the investment by the Children's Investment Fund (TCI), Mr Hohn's activist fund, has been impressive: since it bought CSX shares in October 2006, they have almost doubled. But the firm has resisted TCI by employing hardball tactics of its own, including taking the fund to court and accusing it of illegally building its position by stealth.

The damage to TCI from the court's decision is reputational. After ruling that TCI should have earlier disclosed its position, Lewis Kaplan, the judge, said parts of the testimony of Mr Hohn, and his colleague, Snehal Amin, were "not credible", "incredible" and even "border[ing] on the absurd". The case also reveals juicy details about how TCI operates. It pays big commissions to its prime brokers (a total of \$99m since the end of 2005). And Mr Hohn is relentless. After buying the initial stake, TCI repeatedly lobbied CSX's management and its advisers, proposing a buy-out and board changes. TCI slowly built its exposure using derivatives, and, according to Judge Kaplan, told other funds about CSX in order "to steer CSX shares into the hands of like-minded associates".



The meat of the decision regards these derivatives. Much of TCI's 16% stake in CSX is in "total-return equity swaps" struck with brokers. These instruments, which are widely used, give TCI economic exposure, but not voting rights. Until now, the assumption on Wall Street has been that such derivatives did not have to be disclosed, allowing funds to build big positions in secret. Judge Kaplan disagreed with this "formalistic" interpretation, musing instead that such swaps let activists "ambush" companies. He also said that there were persuasive arguments that such derivatives amount to beneficial ownership. After all, the brokers usually hedge the derivatives contracts they write by buying shares. Big clients may influence how those shares are voted.

The ruling is far from final: both parties plan to appeal and Judge Kaplan declined to make a definitive judgment on beneficial ownership. But it is controversial. It contradicts guidance from the Securities and Exchange Commission, America's financial regulator, which recently warned that to treat swaps as a form of ownership would be "novel" and "create significant uncertainties". Until there is clarity, activists will tread carefully when taking new positions. Whether that helps CSX's board is another matter. TCI and a partner fund remain free to vote any shares they own. They intend to do so at CSX's annual shareholder meeting on June 25th, when they will try to replace five of the railway company's 12 directors. It should be a knife-edge vote.

## Vietnam

## Flu symptoms

Jun 19th 2008 | BANGKOK  
From The Economist print edition

## Is dangerous overheating contagious?

EVEN by the standards of Asia's booms and busts, the turnaround in Vietnamese investors' sentiment has been remarkable, veering from wild optimism a few months ago to deep pessimism today. Surging inflation—it is now over 25% year-on-year—has aggravated a slump in the Ho Chi Minh City stockmarket, previously one of Asia's most bracing (see chart). From worrying about upward pressure on the dong, the authorities now fear a currency collapse. Some economists worry this could spill over to other Asian countries where inflation is also reaching alarming levels.

The central bank has announced a 2% devaluation, hoping to relieve the pressures on the currency. It also raised its base interest rate from 12% to 14%. The moves, however meek, briefly supported the stockmarket, which had fallen for 25 trading days in a row. But offshore trading in dong futures is pricing in a further devaluation of around 30% within a year.

It has been clear for months that Vietnam's economy is overheating. The trade deficit from January to May was over \$14 billion, about the same as for all of 2007. Like the stockmarket, property prices have tumbled, leading to fears about the country's banks, which lent heavily for speculation in both assets. The government is already thought to be providing discreet liquidity support to a dozen small banks. For all these concerns, foreign investors still see Vietnam as "the next China". It is the Vietnamese who are gloomy, and fears of hyperinflation run deep after some bruising encounters in the past.

Already, there are signs that people are hoarding gold. Tim Condon, an economist at ING in Singapore, notes that although Vietnam imported 43 tonnes of gold in the first four months of this year, the precious metal is trading in Ho Chi Minh City at a big premium to the international price.

Meanwhile, the government is trying to curb currency speculation by restricting foreign-exchange booths from selling dollars. To reduce imports, it is said to be allowing the central bank to sell dollars only to businesses that have its approval for their foreign purchases (such as buying capital goods). This, however, may push others towards the black market or offshore, further undermining the credibility of the official exchange rate.

Despite the recent increases, real interest rates remain negative. Meanwhile, a daft law bans banks from pricing loans at more than 150% of the base rate and this has all but stopped lending. That, in turn, has increased the risk of a hard landing, says Dominique Dwor-Frecaut, an economist at ABN AMRO in Singapore: better to let the market set the price of credit.

To make matters worse, the government has stopped publishing timely figures on the banking system and foreign reserves. Word is that the reserves are not far short of the \$23 billion-worth the country had in December, despite its efforts to shore up the currency. But the absence of official figures "makes people think the worst", says Mr Condon.

Could Vietnam's difficulties be a harbinger of trouble elsewhere in Asia? The optimists say no, arguing that inflation could peak later this year, the government's measures could restore lending and imports to sensible levels and a moderate devaluation could relieve the pressure on the dong. Moreover, Vietnam's current-account deficit—13% of GDP, according to the IMF—is one of the widest in Asia. Its currency problems are in a category of their own.



However, Vietnam serves as a timely reminder of how quickly inflation can get out of control, and the speed with which that can shatter confidence. Policymakers across Asia should be taking note.

## Investment in Brazil

### Money magnet

Jun 19th 2008 | SÃO PAULO  
From The Economist print edition

#### Playing the commodities boom, Brazilian-style

IF BRAZIL'S commodities-fuelled boom had a face, it would belong to Eike Batista. On June 13th the entrepreneur floated some of the stock in OGX, an oil company he created last year. It has yet to start drilling and therefore has no proven reserves. It has fewer than 100 employees. And yet the initial public offering raised \$3.6 billion, giving the company a similar market value to Google when it floated in 2004.

The idea for the company apparently came to Mr Batista mid-air, while he was discussing the remarkable hit ratio in terms of wells sunk to barrels found of Petrobras, Brazil's national oil company. Petrobras's monopoly ended in 1996, but ever since then it has taken advantage of its dominant position, persuading potential competitors to work with it rather than take the company on in its home waters. Why not, thought Mr Batista, hire those Petrobras people who are so good at finding oil, pay them more than they used to earn, and use their expertise to decide which drilling rights to buy at auction.

Mr Batista put in \$300m of his own money and raised a further \$1 billion from venture capitalists. Then in November Petrobras said that it had found a large deep-water field called Tupi (some think that the timing of the announcement was spurred by the imminent competition from OGX). The government quickly withdrew the blocks adjoining Tupi from a forthcoming auction of exploration rights.

Undeterred, Mr Batista invested \$100m in research and then bid for some other blocks in shallower waters. Each bid ended in 63, Mr Batista's racing number when he spent his time burning hydrocarbons in powerboats rather than looking for them under the seabed. Some thought he paid too much. But those venture capitalists have already made more than four times their money, on paper at least, in under a year.

OGX may not even have to produce any oil for them to make more. If exploration results in its reserves moving from the hypothetical to the proven, Mr Batista would probably find that his asset would attract big oil firms. This would follow a precedent set by MMX, an iron-ore company that Mr Batista partially floated in 2006. He sold half of it to Anglo American, a mining firm, just over a year later for \$5.5 billion, before it had produced much ore.

In some ways buccaneering is emblematic of the new Brazil. Mr Batista talks up his wealth in a country where discretion is the norm (he has a silver sports car parked in the living room of his house in Rio and a dozen more in the garage). His recent success would not be possible without the country's vigorous capital markets, which have grown enormously this decade. Brazil's recent sovereign-rating upgrades from Standard & Poor's and Fitch, two rating agencies, have made the place easier to sell to foreign investors. And everything Mr Batista has done recently has been helped by high commodity prices.

And yet Mr Batista's story also holds something of the old Brazil, with its mix of politics, influence and state-controlled firms. He was a big donor to the re-election campaign of Luiz Inácio Lula da Silva, the president. His father was once mining minister and later ran what is now known as Vale, a big mining firm. His father's contacts launched Mr Batista in the mining business. Yet plenty of other people start with such advantages. If Mr Batista uses them to shake up those parts of Brazil's economy that are dominated by a single huge company, so much the better.

## The dollar

## FEER of falling

Jun 19th 2008

From The Economist print edition

**America still has a big current-account deficit. So is the dollar too dear?**

ANYONE in France dispirited by the loss of purchasing power stemming from high oil and food prices should be revived by a trip across the Atlantic. The exchange rate that would equalise prices in America and the euro area—the purchasing-power parity, or PPP—is \$1.16, according to the OECD. Yet a euro buys as much as \$1.55. With such a discrepancy, a European visitor cannot help but feel flush. On arriving in America, his spending power is instantly boosted by a third.

The wallets of American travellers are correspondingly thinner. Measured against the currencies of America's trading partners, the dollar has fallen by a quarter from its peak in 2002. Some economists have long argued that such a big drop was necessary. By curbing imports and boosting exports, a cheaper dollar helps shrink America's current-account deficit and wean the economy off its reliance on consumer spending.

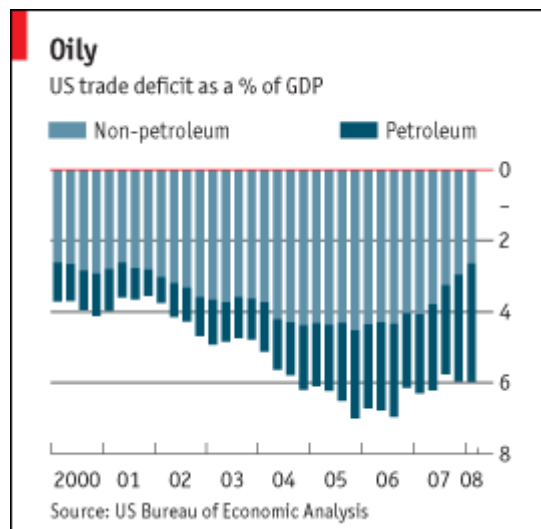
Thanks in part to a weaker dollar, exports have helped prop up the ailing American economy. But the current-account deficit has not narrowed by as much as hoped. Figures released on June 17th revealed that it grew to \$176.4 billion (5% of GDP) in the first quarter. Though down from a peak of 6.6% of GDP in late 2005, this is still a big shortfall. Strip out the surplus on investment income, and the underlying trade deficit is close to 6% of GDP.

The competitiveness of American businesses has improved. The deficit on goods and services other than petroleum has narrowed sharply as a share of GDP (see chart). The trouble is, much of the improvement has been offset by a ballooning deficit on oil, reflecting the rising cost of America's energy dependence.

Despite this enduring imbalance, some think the dollar may now have reached bottom after its long fall. David Woo, head of currency strategy at Barclays Capital, senses a shift in investor sentiment. "Dollar bears are clearly outnumbered now," he says ruefully. The conviction that the next move in American interest rates is up has helped stabilise the greenback, as have comments by Ben Bernanke, the Federal Reserve chairman, that he is mindful of the inflation threat posed by a weak currency. And as French and German holidaymakers are discovering, the dollar is cheap against a PPP benchmark.

Against other gauges, however, the greenback may still be overvalued. One is the fundamental-equilibrium exchange rate (FEER), which is the rate consistent with a steady economy at full employment and a sustainable current-account balance. The FEER approach was pioneered by John Williamson at the Peterson Institute for International Economics in Washington, DC, who, with his colleague William Cline, is about to publish a paper with new estimates for 30 countries. Mr Williamson reckons the dollar has "not greatly overshot" its fair value against the euro, though it could more usefully gain ground against Asian currencies.

A recent IMF paper sets out its approaches to valuing currencies. As it uses FEER-type analyses in two out of three of its main models, the fund's judgment on the dollar is likely to be similar to Mr Williamson's own. As he himself notes, the FEER estimates depend heavily on assumptions about what counts as a current-account balance that can be sustained in the long run. The Williamson-Cline model imposes a symmetrical 3% rule: that no country's surplus or deficit should exceed 3% of its GDP.





That may be too restrictive for some tastes. In a forthcoming paper, Richard Cooper of Harvard University points out that America's relatively fast-growing population, secure property rights and liquid financial markets make it a magnet for global savings. The share of assets owned by foreigners is still lower than in some other rich countries, so large trade deficits could plausibly continue, if not indefinitely, then for many years.

Such judgments matter. A rule-of-thumb for FEER models is that a 1% of GDP increase in the "permitted" trade deficit lifts a currency's fair value by 10%. Investors who are relaxed about the current account point to the PPP gauge as evidence that now could be a good time to buy the dollar. Those who fret about "imbalances" favour the FEER approach and believe the greenback should stay near today's level to keep America on the right path. For them, the increasingly familiar sound of French and German accents on New York streets is a symptom of a necessary adjustment.

**Economics focus****Emissions suspicions**

Jun 19th 2008

From The Economist print edition

**Are countries that regulate greenhouse gases exposing their industries to unfair competition from those that do not?**

Illustration by Jac Depczyk



IN AMERICA they call it the China question. In Europe they call it the America question. In every country that has contemplated regulating greenhouse gases, it is seen as a problem: how can policy ensure that legal limits on emissions do not put local firms at a disadvantage to their foreign competitors? After all, if the cost of compliance puts factories in countries with strict rules out of business, while those in grubbier places flourish, a regulation is worse than useless. The planet's emissions stay the same, or rise, while the country doing its bit for the environment loses investment and jobs.

Politicians have been quick to spot this threat. Back in 1997 America's Senate voted by 95-0 to reject any international treaty on climate change that did not embrace industrial rivals such as China. A bill to limit emissions that came close to passing the Senate earlier this month included fearsome "carbon tariffs" on imports from such countries, to help shelter American factories from unfair competition. But warnings from manufacturers that the bill would still cost millions of jobs helped to ensure its defeat. The European Union has already adopted an emissions cap, but France's president, Nicolas Sarkozy, wants it to build in a "carbon tariff" too.

How grave is the danger that these tariffs would counter? By a variety of methods, economists are trying to assess which industries are most at risk, how much they would suffer under different climate regimes and how best to respond. Their findings do not support the shrill protectionist rhetoric.

**Lost in the hot air**

The authors of "Leveling the Carbon Playing Field", published recently by the Peterson Institute for International Economics, a think-tank based in Washington, DC, argue that the damage would be small. Most manufacturers (let alone service industries) do not use much energy, the main source of emissions, and so would not suffer big costs. Energy makes up less than 1% of the cost of making cars, furniture or computers. Even some energy-intensive industries, such as power generation, should not be much affected. Since they have no foreign competition, they could pass on extra costs to their customers.

Only a few industries—metals, paper, chemicals, cement and the like—are both global and profligate enough to be at risk. These accounted for just over 3% of America's output in 2005 and less than 2% of its jobs. Much the same is true in Europe: those industries, plus refining, account for less than 5% of

output and an even smaller share of jobs, according to the interim report\* of a group of academics studying the effects of Europe's carbon-trading scheme.

Even those supposedly vulnerable industries do not seem to have wilted in the face of a carbon price, according to two contributors to the study, Richard Baron and Julia Reinaud of the International Energy Agency, a Paris-based consultancy-cum-watchdog for energy-consuming nations. Ms Reinaud cannot even detect any impact on aluminium, which is as energy-intensive and widely traded as any good. She points out that a shuttered smelter in Germany reopened in 2007, despite the rising cost of emissions.

There are many explanations for this resilience. One is that booming demand for aluminium and other commodities has kept all manufacturers profitable. Product specifications that vary from country to country, meanwhile, help to protect refiners from foreign competition. And Europe has handed out so many free permits to pollute that the costs of meeting its emissions cap have been negligible so far.

But putting a price on carbon may still do some harm in the future, Ms Reinaud cautions. Europe is planning a tighter cap and fewer free permits. Many blueprints for emissions-trading in America call for no free allocations whatsoever. What is more, the biggest effects may come not in the short term, as factory closures, but later, as lower investment in new plant.

A study sponsored by Resources for the Future, an American think-tank, has tried to describe how American industry would meet a carbon price, albeit one of just \$10 a ton—much less than the European price of over €25 (\$39). Based on economic modelling, it concludes that industrial output would fall by less than 1%. The hardest-hit industry would be metals, but even that would shrink by only 1.5%. Better yet, the damage could be offset by granting energy-intensive firms enough free permits to cover just 15% of their emissions.

Another study under way at the Pew Centre on Global Climate Change, another think-tank, sizes up a \$15 carbon price using data on the past effects of rising energy prices on industry. It concludes that output would fall by 2% or less in 80% of cases. Paper and glass would face a bigger contraction, of 5%. Still, even the most vulnerable industries would not suffer the Armageddon that lobbying groups are predicting.

That is important, since it suggests that the politicians are over-reacting, and that their remedies may actually make matters worse. A carbon tariff, for example, would be hard to implement. Customs officials would either have to assess the emissions embedded in imports, an impossibly complicated task, or make arbitrary assumptions, a recipe for a trade war. Moreover, it would do nothing to protect exports of energy-intensive goods from cheap competition.

Many studies also point out that carbon caps could bring benefits, in the form of factories making windmills, say, or solar panels. But these are even harder to quantify than the costs—and so they are even easier for the politicians to ignore.

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\*["The European Carbon Market in Action: Lessons from the First Trading Period. Interim Report."](#)

## The endowment effect

## It's mine, I tell you

Jun 19th 2008

From The Economist print edition

Illustration by Claudio Munoz

**Mankind's inner chimpanzee refuses to let go. This matters to everything from economics to law**

"I AM the most offensively possessive man on earth. I do something to things. Let me pick up an ashtray from a dime-store counter, pay for it and put it in my pocket—and it becomes a special kind of ashtray, unlike any on earth, because it's mine." What was true of Wynand, one of the main characters in Ayn Rand's novel "The Fountainhead", may be true of everyone. From basketball tickets to waterfowl-hunting rights to classic albums, once someone owns something, he places a higher value on it than he did when he acquired it—an observation first called "the endowment effect" about 28 years ago by Richard Thaler, who these days works at the University of Chicago.

The endowment effect was controversial for years. The idea that a squishy, irrational bit of human behaviour could affect the cold, clean and rational world of markets was a challenge to neoclassical economists. Their assumption had always been that individuals act to maximise their welfare (the defining characteristic of economic man, or *Homo economicus*). The value someone puts on something should not, therefore, depend on whether he actually owns it. But the endowment effect has been seen in hundreds of experiments, the most famous of which found that students were surprisingly reluctant to trade a coffee mug they had been given for a bar of chocolate, even though they did not prefer coffee mugs to chocolate when given a straight choice between the two.

Moreover, it is now possible to see the effect in the brain. In the June 12th edition of *Neurone*, Brian Knutson of Stanford University describes a brain-scanning study he carried out recently. The pattern and location of the activity he observed suggests the endowment effect works by enhancing the salience of possible loss. But that still does not explain why this sense of loss should be felt. The question is whether such behaviour is truly irrational, or just "differently" rational. That might be the case if, for instance, it was a hangover from the evolutionary past that worked then, but is no longer appropriate now.

**Mug's game**

The endowment effect has nothing to do with wealth (it is not as if chocolate bars and coffee mugs matter) or transaction costs (in most experiments these are zero). Not even emotional attachment, whatever that means, can really be called in as an explanation, since the effect is both instantaneous and sometimes felt even by those who buy and sell for a living. According to Pete Lunn, an economist at the Economic and Social Research Institute in Dublin, professional market traders are often reluctant to sell investments they already hold, even though they could trade them for assets they would prefer to invest

in if starting from scratch.

Supposedly rational economists are affected, too. Dr Thaler, who recently had some expensive bottles of wine stolen, observes that he is “now confronted with precisely one of my own experiments: these are bottles I wasn’t planning to sell and now I’m going to get a cheque from an insurance company and most of these bottles I will not buy. I’m a good enough economist to know there’s a bit of an inconsistency there.”

The effect is not, however, universally observed. Whereas coffee mugs generate an endowment effect, tokens that can be exchanged for coffee mugs do not. And despite Dr Lunn’s observations, other work suggests professional traders can, and do, overcome the effect. So what is going on?

Owen Jones, a professor of law and biology at Vanderbilt University, and Sarah Brosnan, a primatologist at Georgia State University, suspect the answer is that, in the evolutionary past, giving things up, even when an apparently fair exchange seemed to be on offer, was just too risky. These days, as they discuss in a paper just published in the *William and Mary Law Review*, there are contracts, rights and other ways of enforcing bargains. Animal societies have none of these mechanisms. As Adam Smith observed in the “Wealth of Nations”, “nobody ever saw a dog make a fair and deliberate exchange of one bone for another with another dog.”

To put flesh on their idea, Dr Jones and Dr Brosnan have been trying to overcome Smith’s observation by training chimpanzees to trade. In 2006 Keith Chen of Yale University showed that capuchin monkeys could learn to do so, and also seemed to exhibit the endowment effect. Chimps, it turns out, can manage to truck too. In the chimp study, tubes of peanut butter and frozen juice bars were used. Both treats were designed to be difficult to eat quickly. This makes it possible for animals that would otherwise consume any food they were given at the first opportunity at least to consider the idea of an exchange.

When presented with a choice, 60% of the chimps preferred peanut butter to juice. However, when they were endowed with peanut butter, 80% of them chose to keep it instead of exchanging it for juice. It was as if the peanut butter became more valuable as soon as it was possessed. And an opposite endowment effect was observed when the chimps were given juice.

Observing the endowment effect in three primate species suggests it does, indeed, have deep evolutionary roots. Better still, before they started work Dr Jones and Dr Brosnan predicted that the strength of the effect would vary with the evolutionary salience of the item in question. Lo and behold, when they tried the same experiments using bone and rope toys, no endowment effect was seen. Food is vital. Toys are not.

If the endowment effect does indeed vary according to evolutionary salience, this may make sense of the disparate results of hundreds of studies on people. But it does raise the question of what is and is not evolutionarily salient. Food and mates clearly are. Tangible goods such as mugs, as opposed to abstract goods such as vouchers for mugs, probably are too. But intangible possessions, such as shareholdings, do generate some effect, so physical presence cannot be all there is to it.

Steffen Huck, an economist at University College, London, has an alternative hypothesis that is directly to do with trade. In societies with markets, customers can go elsewhere. But in a small, tribal society there may be no alternative seller. In that case, those who were reluctant to trade might get better prices. It may thus make sense for an owner to be psychologically predisposed to hold out for a high price as soon as someone else expresses interest in one of his possessions—something Dr Huck’s models predict would, indeed, be evolutionarily beneficial.

## Keep on trucking

Because the endowment effect touches on so many areas, Dr Jones thinks it may be helpful for legislators to understand its evolutionary origins. That goods and rights such as pollution permits, radio spectrum and mobile-telephone licences do not inexorably flow towards the most efficient distribution worries the legal scholars charged with designing fair allocations. The effect also complicates the negotiation of contracts, as people demand more to give up standard provisions than they would have been willing to pay had they bargained anew.

Nor is the endowment effect alone in suggesting that *Homo economicus* is a rarer species than neoclassical taxonomists would like to believe. Other “irrational” phenomena include confirmation bias

(searching for or interpreting information in a way that confirms one's preconceptions), the bandwagon effect (doing things because others do them) and framing problems (when the conclusion reached depends on the way the data are presented). All in all, the rational conclusion is that humans are irrational animals.

## Medicine

**Better than cure**

Jun 19th 2008

From The Economist print edition

**Healthy living switches off genes that promote cancer**

THAT a healthy way of life can prevent cancer is well known. It is also becoming clear that clean living can help those who already have tumours to survive, and may even prevent the disease from coming back. A number of studies have shown these effects in breast cancer and colon cancer. But how they work at a molecular level remains a mystery.

One person keen to know what is going on is Dean Ornish of the University of California, San Francisco. Besides his academic job, he is the founding president of the Preventive Medicine Research Institute, a charitable foundation based in Sausalito, California—and, as he freely admits in the interests of full disclosure, an author of general-interest books on preventive medicine and a consultant for large food companies on how to make “more healthful foods”. He was also one of the first to show scientifically that healthy living (a low-fat vegetarian diet, plenty of exercise and—of course—no smoking) can not merely stop, but also reverse the progress of coronary heart disease. He and his colleagues therefore decided to look at gene activity in a group of people with cancer who had chosen to change their ways rather than undergo medical treatment, to see if that would illuminate the nature of the health-giving processes in question.

The team chose men with prostate cancer for their study. They picked this cancer because it is slow-growing. When such a cancer has been diagnosed early, doing nothing is a reasonable alternative to the trauma of surgery, radiation or hormone therapy. Dr Ornish enrolled 30 such early-stage patients into a programme of “comprehensive lifestyle changes”. These included a low-fat, whole-food, plant-based diet, stress management, moderate exercise and plenty of “psychosocial group support”. Patients’ prostates were sampled at the start of the study, and then three months later to see what had changed.

For a gene to do its work, it has to be transcribed into a molecular messenger. This messenger, a molecule of a substance called RNA, carries instructions to the protein-making parts of a cell, telling them what to make. The more RNA messengers that have been transcribed from a gene, the more active that gene is assumed to be. Count the shifting number of messengers, then, and you can see the effects on the genes of a course of treatment. And that, using so-called gene-chip technology, is what Dr Ornish did.

He and his colleagues found that after three months, the activity of more than 500 genes was altered in the prostate in a way that might be expected to help fight cancer. The good life turned off tumour-promoting genes (known as oncogenes)—including several that are the target of efforts to develop anti-cancer drugs. Meanwhile, disease-preventing genes, including one for a protein that may help the immune system to recognise tumour cells, were switched on. Exactly how changes in lifestyle have this effect on the genes is unclear. But the study suggests the process reaches deep into the body’s molecular biology.

Before anyone rushes out for a quick glass of wheatgrass juice, though, there are a few caveats. First, 30 patients is quite a small sample, so the results should be treated cautiously. Second, there was no control group. Though a “before and after” comparison like this does have some value, it is better to conduct a study in which half the participants do not receive the treatment under test, and then compare the two halves.

Nevertheless, the results are intriguing. As far as Dr Ornish is concerned, the message is that it is wrong to be nihilistic about cancer and assume that nothing can be done because “it is in the genes”. As for how much prevention is necessary, he says his earlier work showed a correlation between the degree to which patients adhere to the kind of changes he proposes and the level of improvement they make. “It is”, he adds, “all in my book.”





## Circumcision

## Cutting the competition

Jun 19th 2008

From The Economist print edition

## Mutilating male members may mar men's mischievous matings

CIRCUMCISION and other forms of male-genital mutilation are commonplace in many societies around the world. The origin of these practices, however, puzzles anthropologists and evolutionary biologists. They wonder what benefit they could bring, especially given the obvious risks of infection and reduced fertility.

Explanations have ranged from the pragmatic (a ritual that marks the beginning of adulthood and bonds men together) to the Freudian (having something to do with the pain of the separation from the mother). However Christopher Wilson, a neurobiologist at Cornell University, has a different idea. In a recent paper in *Evolution and Human Behavior* he suggests that male-genital mutilations are actually intended to prevent younger men from fathering children with older men's wives.

Dr Wilson takes his cue from sperm-competition theory, which suggests that males of promiscuous primate species have evolved features that maximise their own sperm's chances of fertilising an egg they might have to compete for. These features include large testicles which produce more sperm, and morphologically complex penises. Males of monogamous primate species, on the other hand, have smaller testicles and simpler penises. Human genitals are somewhere in between, perhaps reflecting the fact that people generally form pair bonds, but are susceptible to occasional bouts of promiscuity.

Some forms of genital mutilation have obvious effects on fertility. For instance, several African and Micronesian societies practice testicular ablation—the crushing or cutting off of one testicle. Some Australian aborigines engage in subincision, which exposes part of the urethra and thus causes sperm to leak out of the base of the penis. Circumcision does not have quite such clear-cut effects. But there are several ways it may affect fertility: most obviously, the lack of a foreskin could make insertion, ejaculation or both take longer. Perhaps long enough that an illicit quickie will not always reach fruition.

Older men are in a position to form alliances with younger men—passing on knowledge, lending them political support and giving them access to weapons. By insisting that the young undergo genital mutilation of some form as a *quid pro quo*, an older married man can seek to ensure that even if he is cuckolded, he will still be the father of his wives' children. Of course, the older man has probably undergone genital mutilation too, and seen his own fertility reduced. But that, if anything, increases his incentive to make certain that the young bucks are similarly handicapped. And if all the older men in a society conclude this is a good thing, it will rapidly become a socially enforced norm.

To test this theory, Dr Wilson made several predictions. Among them, he suggested that mutilation is more likely to be practised in polygynous societies (since a man with several wives is more vulnerable to cuckoldry), and is especially likely in those polygynous societies where a man's co-wives live in separate households from their husband. It should also take place in a public ceremony watched by other men, to avoid cheating or free-riding. And there should be a strong stigma against men who refuse it.

To test his predictions, Dr Wilson looked at a database of 186 pre-industrial societies. Some 48% of the highly polygynous ones practised a form of male-genital mutilation, and the number rose to 63% when co-wives kept separate households. By contrast, only 14% of monogamous societies practised mutilation. Moreover, and also as predicted, the mutilations were almost always carried out in public, often as part of a coming-of-age ceremony at puberty, with strong stigma attached to un mutilated men.

Dr Wilson's paper does not definitely prove that sexual competition is at the root of male-genital mutilation. But it does provide a plausible explanation for a puzzling practice. It is not likely, however, to have much effect on attitudes toward circumcision. The men who enforce and undergo the rituals are no more aware of the underlying evolutionary motivations than of why their testicles are the size they are. Those who engage in the practice for religious reasons will surely continue to do so. Otherwise, most of

the Western world has already largely abandoned routine neonatal circumcision, which is seen as an outdated and unfortunate medical fad.

The exceptions are America, where more than half of newborn boys are still circumcised, and Africa, where circumcision helps to stop the transmission of HIV, the AIDS-causing virus. There, infection really is a far greater threat to the number of children a man might have than the loss of his foreskin.

## The Duke of Marlborough

## Aristocracy at work

Jun 19th 2008

From The Economist print edition



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## A new life of a general who moved through court and battlefield with equal verve

ARISTOCRACY seems such a quaint form of government now that it is sometimes hard to remember that it was once thought to be the only viable option, at least for a state above a certain size. The life of the first Duke of Marlborough is, in part, an illustration of how effective it could be. The page boy, sent to court to restore his family's wealth, got his break in the army after catching the king's eye.

This sounds like a hopelessly inefficient way to pick a military leader, but Marlborough turned out to be a brilliant commander who, as his descendant and biographer, Winston Churchill, wrote, never fought a battle he did not win or saw a town he could not take.

Ever since Churchill described Marlborough's childhood at Ashe House in Devon, the duke's urge to get on has been ascribed to the discomfort he felt at the disjuncture between his family's high social status and its empty pockets. His family had been on the losing side during the English civil war and it had cost them. Yet the restoration of the monarchy in 1660 created opportunities for impecunious Royalists, and Marlborough availed himself of them.

At court, he used his looks to charm the right women and his ability to avoid making enemies. He was a diplomat before he became a commander, something that proved useful later when he had to keep together the coalition of armies ranged against France. His most significant conquest at court was not a rich dowager but Sarah, who became his wife.

She, like him, was less grand than her presence in royal circles implied. She was beautiful and pushy and they loved each other, which seems surprising given the age and the velvet-and-brocade backdrop to their courtship. She also had a tough streak; she quarrelled so often with Sir John Vanbrugh, the architect of the Marlboroughs' palace at Blenheim in Oxfordshire, that she ended up banning him from the place, denying Vanbrugh the chance to look at his masterpiece. Her children, pictured above with their duke and duchess, found her equally hard to get along with. Yet she fed Marlborough's ambition and together they perfected the skill of negotiating the circles of influence at court.

Power that came like this could easily be taken away. Marlborough deserted his long-time patron, James

Marlborough:  
England's Fragile  
Genius

By Richard Holmes

Harper Press; 564 pages;  
£25Buy it at  
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II, in favour of William of Orange. Yet he later found himself sidelined under suspicion of having sympathies with the deposed monarch's line, before coming back into favour. Sarah's great moment came with the accession of her friend Anne to the throne, and yet when she fell out with the monarch she too was dumped. In a final fit of pique Sarah had all the fixtures and fittings removed from her apartments in the royal household. Her queen responded by suspending payments on Blenheim Palace.

Richard Holmes has written a lot of military history, and has also taught it at Sandhurst, a British school for army officers. He is a good storyteller and has a rather 17th-century way of sketching characters: Charles XII of Sweden, for example, "abstained from women and alcohol, but enjoyed wrestling with bears". His chief interest, though, remains those battles where maps and tactics are more important than charm, uncertainty and luck.

Although Marlborough was no original tactician, Mr Holmes argues persuasively that the duke's skill lay in probing his opponent's defences, then moving quickly and committing troops when a weakness opened up. He did this again and again, and with the exception of the battle of Malplaquet, loss of life on his own side was relatively low.

After all this winning, though, Marlborough ended up being brought low by an inquiry into the use of public funds during the war, which found that he had been raking off 2.5% of the money paid to the soldiers serving abroad and had also accepted a large cheque from the merchants who supplied the men with bread. Yet the king forgave the boy from Ashe House these indiscretions, which allowed his descendants to grow up in a palace where they live to this day.

Marlborough: England's Fragile Genius.

By Richard Holmes.

*Harper Press; 564 pages; £25*

## American foreign policy

## Imperial instincts

Jun 19th 2008

From The Economist print edition

## America's longing for an empire has a long history

NEARLY 50 years ago, when William Appleman Williams, one of the 20th century's most important historians of diplomacy, drew attention to America's persistent search for an empire, he was denounced for being pro-communist.

To challenge deeply held beliefs about American innocence was shocking enough. To contradict cold-war propaganda was worse. Recently, however, such ideological conformism has been disappearing. It has become acceptable to speak of empire, both among those who defend American foreign policy and those who condemn it. "If people want to say we're an imperial power—fine," says William Kristol, a right-wing commentator. Two years ago, in "Dangerous Nation", Mr Kristol's fellow neoconservative, Robert Kagan, also acknowledged the aggressive side of American behaviour.

Now Walter Nugent, of Notre Dame University, has produced a comprehensive history of how the thrust of empire shaped American history. He stops short of recent years, scarcely mentioning the Iraq war. But he makes it plain that the policies of the present administration have a pedigree that goes back even to the Founding Fathers: Thomas Jefferson himself hoped for "an empire for liberty".

Mr Nugent points out that although there have been many accounts of specific events and ideas—among them the expulsion of the southern Indians down the Trail of Tears, Manifest Destiny or the Spanish-American war and the conquest of the Philippines—"telling the whole story reveals patterns that individual episodes do not."

Expansion came in three phases. First, the drive from the Atlantic colonies to the Pacific, in which settler pressure, boosted by extraordinary demographic growth, demanded the acquisition of territory. In the second, America acquired colonies and protectorates around the Pacific and the Caribbean. With the second world war and the cold war, "a third phase of American empire-building, still with us, came into being." Thus, Mr Nugent concludes, "we have always been an imperial nation, and remain so, but the shape of the American empire has shifted over time."

Perhaps the most original section of the book is Mr Nugent's account of how America, in negotiation with Britain, France and Spain at the end of the war of independence, acquired the territory between the Appalachian mountains and the Mississippi. He points out that in 1782 hardly any Americans were pressing to follow acquisition with settlement. So Benjamin Franklin, John Jay and John Adams were able to exploit the rivalry of the European powers to acquire this huge territory without either conquest or migration.

Successive chapters recount the Louisiana Purchase (Mr Nugent maintains that Napoleon almost certainly sold territory to which he did not have clear title); the exploitation of Napoleon's invasion of Spain to acquire the Floridas; the Mexican war and the addition of the present states of California, Arizona, New Mexico and more at the Treaty of Guadalupe Hidalgo in 1848. He also shows how Britain, by brandishing naval power, was able to prevent America from taking over British Columbia. He goes on with William Seward's purchase of Alaska and the colonial or pseudo-colonial adventures of the Spanish-American war and the early 20th century: Hawaii, Cuba, the Philippines, Guam, Panama, Haiti and Nicaragua.

Mr Nugent interprets the whole of the American story in terms of the contrast between the ideals of the republic and the "unadmitted reality" of empire, explaining this as a consequence of the American claim to "exceptionalism". His countrymen "should understand that their claim to exceptionalism is valid only in

## Habits of Empire: A History of American Expansion

By Walter Nugent



Knopf; 416 pages; \$30

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terms of their unparalleled growth and the remarkable natural resources their vast country has provided them. They are not exceptional, however, in any sense of moral innocence or purity."

In this he undervalues, quite unfairly, the genuine originality of the American political achievement. If Americans have always had the habit of empire, they have also endowed the world with the ideal of popular sovereignty. Yet Mr Nugent is right to emphasise the persistence of the expansionist strand in American history. Because they believed in the unique nature of their liberty, Americans felt justified in expanding it. Usefully, and originally, Mr Nugent has explained the connection between the two "habits", of coveting territory and of justifying expansion in the name of freedom.

Habits of Empire: A History of American Expansion.

By Walter Nugent.

*Knopf; 416 pages; \$30*



## The Pakistani army

## Pointed guns

Jun 19th 2008

From The Economist print edition

FOR more than half the 60 years it has been independent, Pakistan has been ruled by its soldiers. The army has mostly stepped in when inept civilian governments were on the brink of collapse. In February, however, the reverse occurred. An elected government took over and a new army chief, General Ashfaq Kiyani, declared that his troops would take their orders from the country's civilian leaders.

This shift was given a wary welcome abroad. America, long a benefactor of the Pakistani armed forces, remains perplexed about how to encourage the army to become an effective counter-insurgency force against the emboldened Islamic militants who shelter al-Qaeda in the tribal areas of the north.

Shuja Nawaz, the brother of a former chief of the Pakistani army who died in suspicious circumstances in 1993, drops some clues in this study on why the army developed into such an important national institution when it is so inept at dealing with this internal enemy, yet he draws no firm conclusions.

Mr Nawaz was the director of the International Monetary Fund's publications division, still lives in Washington, DC, and writes a blog about Pakistan, India and America for the Huffington Post. He shows little animus about his brother's death, is on good terms with senior Pakistani officers and has been allowed to use the military archives. He describes the army's internal squabbles but avoids open criticism.

Mr Nawaz devotes considerable space to the air crash in which Pakistan's most famous military leader, General Zia ul Haq was killed in 1988. General Zia's insistence that Pakistan's soldiers should adhere strictly to the tenets of Islam still persists. On the day of the crash, General Zia had been attending a demonstration of American-made M1A1 main battle tanks near Bahawalpur in the Punjabi desert. The performance was a shambles. "The most pathetic sight was of the tank trying to climb up a dirt ramp built at the site, getting stuck, and then sliding sideways off the ramp like a drunken sailor," Mr Nawaz writes, implying that America was planning to deliver inferior equipment that was unsuited to the terrain.

General Zia's plane nosedived as it was returning to the capital, Islamabad, and exploded on impact. Although he was flying aboard an American-made C-130 military aircraft with the American ambassador, Arnold Raphel, also on board, the American authorities refused to allow the FBI to investigate the crash. Mr Nawaz does not overtly accuse America of sabotaging the plane. But he points out that some 250 pages of American government documents remain sealed 20 years after the crash. General Zia's violent death is also the subject of a recent novel by Mohammed Hanif, "A Case of Exploding Mangoes", though neither book reveals much that is new about the incident.

In the 1990s relations between Pakistan's politicians and the army became increasingly mired in personal intrigue, petty politics and corruption. Concern about its traditional enemy India also grew. In a tit-for-tat race between the two, Pakistan began testing nuclear weapons in 1998, ignoring protests from America. After the attacks on the twin towers President Bush stepped up America's military assistance to the Pakistani army in the hope that it would be encouraged to attack the Taliban's rear base in Pakistan's tribal areas. But President Pervez Musharraf, who until last November was also chief of the armed forces, preferred to focus on developing conventional warfare, training and equipment to use against India.

It was not until 2003 that Pakistani soldiers were at last deployed, at America's insistence, against the militants. The Pakistani army, most of which is drawn from flat, agricultural Punjab, lacks the skills to fight in the mountainous tribal areas. Having sustained heavy losses, it retreated to barracks, its morale battered. America, still sending cheques, has been left wringing its hands about what to do next. Unable

**Crossed Swords:**  
Pakistan, its Army  
and the Wars Within  
By Shuja Nawaz



Oxford University Press;  
700 pages; \$34.95 and  
£16.99

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to adapt, Pakistan's most powerful institution may not be so strong after all.

Crossed Swords: Pakistan, its Army and the Wars Within

By Shuja Nawaz

*Oxford University Press; 700 pages; \$34.95 and £16.99*

## Russia

## Hot love in the cold war

Jun 19th 2008

From The Economist print edition

TERROR, stagnation, exile, hope and disillusion are the fabric of Russian history in the last century. These are also the backdrop for Owen Matthews's poignant history of his family's battle with Soviet bureaucracy at its most callous and Western officialdom at its most complacent.

His father Mervyn was one of the earliest British graduates allowed to study in Russia in the 1950s. This changed his life. First, he fell in love with Lyudmila, the frail, brainy daughter of a senior communist purged in the 1930s. Second, he flirted with the KGB. They insisted that he work for them. When he refused, he was expelled, permanently, from the Soviet Union. Lyudmila's repeated applications for an exit visa were denied.

That could have been the end, among millions of other commonplace tragedies in the decades that the Kremlin devoted to creating paradise on earth. But it wasn't. Showing great reserves of determination, Mervyn Matthews spent the next five years running a threadbare but relentless campaign to get Lyudmila to Britain. He buttonholed any public figure who could help, harassed the press and infuriated Foreign Office mandarins who regarded the whole affair as an irrelevant nuisance. He travelled round Europe to try to lobby visiting Soviet bigwigs, and even managed twice to slip into the Soviet Union on visa-free day trips from Finland to see her.

In between he wrote daily to Lyudmila in spare but affectionate prose. He carefully kept copies of his own letters and of her replies, which are steeped with frustrated uxoriousness (love mixed with fussing about his diet and clothes). Through these extracts the reader can almost smell the longing and the willpower. They also show how the couple's unhappy families—Mervyn's father is absent because he disliked his relations, Lyudmila's because he died in the Gulag—made them seem to match each other so neatly.

The campaign for Lyudmila cost Mervyn his academic career. He did not publish his work on Soviet sociology for fear of offending the Kremlin. After lobbying a visitor to his Oxford college too brusquely, he was eased out and took a job at another university which he despised. In Moscow, Lyudmila was hounded for her love affair with someone from the enemy camp.

Astonishingly, the sacrifices were vindicated. In 1969 the Matthews case and that of two other couples were bundled up with an East-West spy swap. Lyudmila came to Britain. The marriage proved less than blissful, although it was saved by dogged loyalty on both sides. Lyudmila adapted poorly to English life; her shy, spartan husband's grit in adversity proved greater than his husbandly capabilities.

But the marriage did produce the author, a legendary hellraiser in Moscow in the 1990s, and now a respectable foreign correspondent. The crisp and admirably self-deprecating vignettes of his own life, both emotional and professional, give his parents' story a fitting perspective. Few books say so much about Russia then and now, and its effect on those it touches.

Stalin's Children: Three Generations of Love and War.

By Owen Matthews.

*Bloomsbury; 308 pages; £17.99. To be published in America by Walker Books in September.*

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## New fiction

## Stephen Carter's "Palace Council"

Jun 19th 2008

From The Economist print edition

AS AMERICANS debate this summer whether they can really believe Barack Obama and his challenge to change Washington politics, one novel is likely to become the talk of the beach.

Stephen Carter, a professor of law at Yale University and one of the country's leading black academics, has a lucrative sideline writing thrillers set among black America's upper classes. Mr Carter's bestselling first novel, "The Emperor of Ocean Park" (2002), explored the secrets of the bench; his second, "New England White" (2007), the highest levels of East Coast academe. With punch, as well as good timing, his new book, "Palace Council", takes on American politics at its most pungent and most powerful.

Given that his book is in part about the rise of black power, this naturally is a novel of the 1960s. Only Mr Carter's 1960s span two decades, from the Supreme Court's 1954 decision to abolish segregation in schools in *Brown v Board of Education* to President Richard Nixon's resignation in 1974. It opens two years earlier, in 1952, when 20 men, all of them wealthy and powerful, meet one evening for dinner and conversation. The invitation stipulates "stag only". No wives. No aides. No drivers. No bodyguards. This to a crowd whose members possess several of each. Hearing who else will be there is the plum each man feels he cannot refuse.

Over cigars their host unveils a plan. It involves a smear fund and an underground terror group that appears to kill prominent black Americans and members of the Ku Klux Klan alike. But at this stage all the reader learns is that the plan is brilliant, complex and efficient. One man who publicly nods his assent believes it is also evil. Thirty months later he is dead: garrotted in the snow in Harlem's Roger Morris Park while nearby, young Aurelia Treene and Kevin Garland, both supposedly scions of black America's aristocracy, celebrate their engagement.

The victim is white and his wallet is missing, two reasons why the local police believe he has been mugged. But Mr Carter's hero, Eddie Wesley, Harlem's rising literary star who had himself hoped to marry Aurelia and is the first to find the body, thinks otherwise. Not least because in the dead man's pudgy hands he finds a gold cross, ornately worked and made to hang upside down in the way St Peter was said to have been crucified. On it, with Miltonian gravity, are the words "We shall overcome". Later Wesley learns the cross also had engraved on it a passage from "Paradise Lost": "We shall be free".

The murder, with its scratched poetic yearnings, sets Wesley and Aurelia on a quest that lasts two decades. Tied up with the killing, and those that follow, is the disappearance a year later of Wesley's pregnant sister, Junie, the only black woman in her law class at Harvard, whose childhood ambition is to become the first black person and the first woman to be elected president of the United States.

Mr Carter has a good feel for the arc America traced from the buoyant post-war optimism of the Apollo programme across the bridge of the Vietnam war to the pessimism surrounding Nixon's fall from power. Along the way, he makes judicious use of political events, large and small, to show what happens to men who get close to the centre of power, be they senators, murky intelligence agents or small-time hoods.

There are illuminating encounters with Nixon—at times depressed, maudlin and self-involved—and with J. Edgar Hoover who, unlike Nixon, knows how to get a point across fast. When Wesley asks him what he wants to talk about, Hoover replies, "Espionage. What we electrocuted the Rosenbergs for."

But Mr Carter is also subtle. Amid the beach towels, those reading his book will be debating what the Palace Council's plan really involved. They will also be asking whether what Mr Carter describes could

Palace Council  
By Stephen L. Carter



Knopf; 510 pages; \$26.95.  
To be published in Britain  
by Jonathan Cape in  
August.

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really happen in America and, of course, if the country is ready to put a black man in the White House.

Palace Council.

By Stephen L. Carter.

*Knopf; 510 pages; \$26.95. To be published in Britain by Jonathan Cape in August.*

## Boxing

## A cultural history

Jun 19th 2008

From The Economist print edition

PUGILISTS and aesthetes are not necessarily in opposing corners. In a history of the sport that dates back to Homer, Virgil and other ancient fight fans, Kasia Boddy, a lecturer in English at University College London, examines the strange attraction boxing holds for highbrow folk. She provides much merriment along the way as she explores the ways professional fighters excite the imagination of writers, artists and intellectuals.

Some of the sport's most pretentious followers are French intellectuals. François Mauriac described Georges Carpentier, a world light-heavyweight titleholder, as "one of those graceful Apollos slightly grazed by the pick in the process of their exhumation" and as "the type of honest man dear to Pascal". Jean Cocteau managed a professional boxer and rhapsodised about his "active poetry" and its "mysterious syntax". Jean Genet wrote poems to a "thief-boxer" and a "muscle rose".

Their American equivalents are more macho. Several climbed into the ring to try their hand at the sport, though only to engage in sparring matches. Rudolph Valentino was an exception in threatening a real fight. The 1920s matinee idol was so angered by being called a "powder puff" in a Chicago newspaper that he challenged the reporter to meet him in the ring. Norman Mailer viewed boxing as a metaphor for his ambitions to be writing champion of the world. T.S. Eliot took boxing lessons from an ex-pugilist in a toughish gym in Boston's South End. Wyndham Lewis was surprised on entering Ezra Pound's Paris studio to find the American poet swinging gloved fists at a splendidly built young man who turned out to be Ernest Hemingway. Thomas Eakins's celebrated studies include a photograph of bare-fisted youths fighting in a wood that is said by Ms Boddy to evoke both pastoral classicism and Manet's "Déjeuner sur l'herbe".

A few boxers fraternised with the intelligentsia. Gene Tunney numbered George Bernard Shaw, Sherwood Anderson and Thornton Wilder among his friends and slipped into his conversation such words as "ineffectual" and "cosmeticise". Muhammad Ali, more typically, accepts the admiration of his cultured fans with bemused affection. He even posed for George Lois for an Esquire magazine cover as Botticelli's "St Sebastian" until the subject's provenance suddenly struck him. "Hey George", he blurted out, "this cat's a Christian!" The photographic session had to be suspended until Mr Ali had consulted his Muslim spiritual leader on the propriety of the pose.

More seriously, Ms Boddy explores ethnic tensions in the sport, especially those between whites and blacks in America. Racism was once raw. When Jack Johnson, the first black heavyweight champion of the world, entered the ring in Reno in 1910 to defeat the latest "White Hope", the band played "All Coons Look Alike to Me". Less than three decades later things had changed markedly. Joe Louis, "the Brown Bomber", enjoyed the fervent support of Americans of all colours when he defended the same title against Germany's Max Schmeling in a fight billed as a contest between democracy and Nazism.

Their successor, Mr Ali, a radical turned patriot, became a thoroughly establishment figure. He campaigned in 1980 for the presidential election of Ronald Reagan and in 1990 flew to Iraq to try to secure the release of American hostages held by Saddam Hussein. President George Bush has been especially appreciative of the former champion's efforts to persuade Muslim Americans to support the wars in Iraq and Afghanistan and in 2005 awarded him the Presidential Medal. This cat is now a pillar of society.

Boxing: A Cultural History.  
Kasia Boddy.

Reaktion Books; 480 pages; \$35 and £25.

## Boxing: A Cultural History

By Kasia Boddy



Reaktion Books; 480  
pages; \$35 and £25.

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## Jonathan Routh

Jun 19th 2008

From The Economist print edition

Arena PAL Topfoto



### John Reginald Surdeval Routh, prankster, died on June 4th, aged 80

HE COULD have gone into the army, like his father. His liking for footnotes might have suited him to be an historian. If his lion's mane of hair had been clipped a bit, and his alarmingly shaggy eyebrows had been half disguised by a bowler, he might have cut a figure in the city; for the accent was right, and he always looked dapper with a brolly. But what Jonathan Routh preferred to do was to dress up as a tree, wait at a bus stop and enquire which bus would take him to Sherwood Forest.

That was one of his easier japes. He also attempted to take a grand piano on the London Underground, and persuaded a crowd of tourists that Nelson's Column needed holding up. He set up pyramids of plates to crash when people passed them, and rigged a mirror in a hat shop so that, when each matron posed simperingly before it, the glass cracked from side to side. His notion of a day's work was to ask a passer-by for tuppence for a cup of tea and, having got the money, produce Thermos, milk and sugar for the astonished benefactor and inquire whether they wanted one lump, or two.

Mr Routh played pranks all his life. Uppingham ejected him for hanging a banner reading "Vote Routh, Communist" in the school chapel, and Cambridge parted company with him after he gathered hundreds of signatures to stop an imaginary motorway across Bletchley Park. In 1957 he put an ad in the *Times*: "Practical joker with wide experience of British public's sad gullibility organises, leads and guarantees success of large-scale hoaxes." He hoped never to do anything else.

His career was made with the appearance in 1960 of the TV series "Candid Camera", in which he starred for seven years. The idea of surreptitiously filming people being tricked had come from Allen Funt in America; but Mr Routh gave it a singularly British twist, and his dark, disturbing features announced the definitive arrival in Britain of the camera as spy. When odd or embarrassing things happened to people after 1960, they would half-expect Mr Routh and his camera to be watching. The modern plague of CCTV devices has grown up in the shadow of his melancholy smile.

He also did much to turn Britons into a nation of voyeurs. On "Candid Camera", they did not merely twitch the lace curtains; they stared boldly, and laughed cruelly, as unsuspecting people had their cars pranged by Mr Routh attempting to park, or were levitated as they made calls from a public kiosk, or jumped as the post box talked to them. Hiding behind the petrol pumps, viewers could watch the astonishment of a mechanic as he discovered that the car Mr Routh had coasted into the garage

contained no engine—neither under the bonnet, nor under the chassis, nor in the boot. “How did you drive in here, sir?” “I just came from Basingstoke.” From a safe but nosy distance, they could watch as a frantic woman attempted to pack cakes on a conveyor belt that had been made to run three times as fast as usual.

## Car-racing nuns

British post-war formality was always useful to him. A prank of serving tea in a cup stuck to the saucer was all the better because people—having tried and failed to lever them apart with spoons or brute strength—still attempted to sip nicely. A trick where a pickpocket removed not only wallet, but also braces, was made wonderful by the indifference of everyone standing by; and Mr Routh’s journey as registered “livestock” through the post from Sheepwash in Devon to Fleet Street, accompanied, as required, by a postal official, was deeply enhanced by the official’s polite silence all the way. As Britons lost their patient obsequiousness, Mr Routh’s pranks played less well. He turned to books: “The Good Loo Guide” (with three-star establishments “worth travelling out of your way to experience”), “The Good Cuppa Guide” and “Leonardo’s Kitchen Notebooks”, in which every invention was in fact a pasta machine.

Some pundits believed that “Candid Camera” led directly to modern TV reality shows. Certainly Mr Routh, like a demon in a Gothic tale, was after the unexpected, the moment of shock that would reveal the true character of the victim. But his victims were innocent. They had not pushed themselves forward, like the self-promoters of “Big Brother” or “Survivor”, and had no thought of seeking fame through humiliation on the screen. They were simply caught in the act of being themselves.

After the show’s demise Mr Routh continued to lead a prankish and other-worldly life, shifting from England to Italy and Jamaica as the sun shone, running through various affairs, and bartering bright primitive paintings to settle his restaurant bills. As a painter, he showed a penchant for formal figures suddenly released from all constraints. He painted nuns driving racing cars and flying balloons, the pope windsurfing, Mona Lisa naked or smoking. His favourite subject was the aged Queen Victoria, on an imaginary trip to Jamaica in 1871, doing the hula-hoop or the limbo dance, riding a zebra and driving dodgem cars. He could have found a more prosaic explanation for the missing three months of her reign. But he preferred, as ever, the shock of the absurd, and the sense of the detached voyeur intruding on private space.

## Overview

Jun 19th 2008

From The Economist print edition

**Inflation** picked up sharply across the rich world. Consumer prices in America rose by 4.2% in the year to May. The headline inflation rate in the euro area was revised up to 3.7% from a provisional estimate of 3.6%. In Britain consumer-price inflation rose to 3.3%, from 3% in April. In an open letter to Britain's finance minister, the central-bank governor, Mervyn King, warned that inflation is likely to rise above 4% in the coming months, as higher wholesale energy prices feed through to household fuel bills.

America's **current-account deficit** increased to \$176.4 billion (5% of GDP) in the first quarter, from \$167.2 billion (4.8% of GDP) in the previous three months. The wider deficit was largely due to a fall in income from foreign investments.

There were fresh signs of weakness in **America's housing market**. The confidence index compiled by the National Association of Home Builders fell back in May, to match the record level of gloominess reported last December. Housing starts in America fell by 3.3%, to their lowest level since March 1991.

GDP in **Russia** rose by 8.5% in the year to the first quarter.

Employment in the **euro area** rose by 0.3% in the first quarter compared with the fourth. Of the four large euro-area countries, only Italy suffered a fall in the numbers in work. Construction output in the euro area fell by 0.8% in April. Output in Spain was hardest hit, tumbling by 6.5% in the month.

## **Output, prices and jobs**

Jun 19th 2008

From The Economist print edition

# Output, prices and jobs

% change on year ago

	Gross domestic product				Industrial production latest	Consumer prices			Unemployment rate†, %
	latest	qtr*	2008†	2009†		latest	year ago	2008†	
United States	+2.5 Q1	+0.9	+1.2	+1.5	-0.1 Apr	+4.2 May	+2.7	+3.8	5.5 May
Japan	+1.3 Q1	+4.0	+1.3	+1.4	+1.9 Apr	+0.8 Apr	nil	+1.1	4.0 Apr
China	+10.6 Q1	na	+9.8	+9.0	+16.0 May	+7.7 May	+3.4	+6.5	9.5 2007
Britain	+2.5 Q1	+1.6	+1.7	+1.4	+0.2 Apr	+3.3 May <sup>§</sup>	+2.5	+3.0	5.3 Apr <sup>††</sup>
Canada	+1.7 Q1	-0.3	+1.4	+2.1	-4.8 Mar	+1.7 Apr	+2.2	+1.8	6.1 May
Euro area	+2.2 Q1	+3.2	+1.7	+1.5	+3.9 Apr	+3.7 May	+1.9	+3.1	7.1 Apr
Austria	+3.5 Q1	+3.2	+2.4	+2.2	-1.1 Mar	+3.7 May	+2.0	+2.6	4.2 Apr
Belgium	+2.2 Q1	+1.9	+1.7	+1.7	-1.3 Mar	+5.2 May	+1.3	+3.0	9.9 May <sup>††</sup>
France	+2.2 Q1	+2.6	+1.7	+1.5	+3.2 Apr	+3.3 May	+1.1	+2.9	7.2 Q1
Germany	+1.8 Q1	+6.1	+1.9	+1.6	+4.8 Apr	+3.0 May	+2.1	+2.7	7.9 May
Greece	+3.6 Q1	+4.5	+2.8	+3.0	+2.0 Apr	+4.9 May	+2.6	+3.9	9.0 Mar
Italy	+0.3 Q1	+1.9	+0.6	+1.1	+2.0 Apr	+3.6 May	+1.5	+2.9	6.0 Q4
Netherlands	+3.1 Q1	+1.0	+2.6	+2.0	+0.4 Apr	+2.3 May	+1.8	+2.3	4.0 May <sup>††</sup>
Spain	+2.7 Q1	+1.2	+2.1	+1.8	+11.3 Apr	+4.6 May	+2.3	+3.8	9.6 Apr
Czech Republic	+5.3 Q1	+3.6	+4.7	+5.4	+12.2 Apr	+6.8 May	+2.4	+6.4	5.0 May
Denmark	+1.9 Q4	+1.2	+1.5	+1.7	+7.8 Apr	+3.4 May	+1.8	+3.0	1.8 Apr
Hungary	+1.7 Q1	+1.3	+2.0	+3.4	+6.7 Apr	+7.0 May	+8.5	+6.3	7.7 Apr <sup>††</sup>
Norway	+0.9 Q1	+0.8	+2.7	+2.4	-4.4 Apr	+3.1 May	+0.3	+3.4	2.4 Mar <sup>***</sup>
Poland	+6.1 Q1	na	+5.1	+4.3	+2.3 May	+4.4 May	+2.3	+4.2	10.5 Apr <sup>††</sup>
Russia	+8.5 Q1	na	+7.2	+6.4	+9.2 Apr	+15.1 May	+7.8	+13.5	6.6 Apr <sup>††</sup>
Sweden	+2.2 Q1	+1.6	+2.3	+2.1	+0.2 Apr	+4.0 May	+1.7	+3.0	5.9 May <sup>††</sup>
Switzerland	+3.1 Q1	+1.3	+2.1	+1.7	+4.4 Q1	+2.9 May	+0.5	+2.0	2.4 May
Turkey	+3.4 Q4	na	+3.2	+4.1	+6.3 Apr	+10.7 May	+9.2	+10.2	11.6 Q1 <sup>††</sup>
Australia	+3.6 Q1	+2.5	+2.9	+3.0	+0.1 Q4	+4.2 Q1	+2.4	+3.6	4.3 May
Hong Kong	+6.8 Q1	+7.4	+4.6	+4.5	-4.4 Q1	+5.4 Apr	+1.3	+5.3	3.3 May <sup>††</sup>
India	+8.8 Q1	na	+7.6	+7.1	+7.0 Apr	+7.8 Apr	+6.7	+6.0	7.2 2007
Indonesia	+6.3 Q1	na	+5.7	+5.9	+2.6 Apr	+10.4 May	+6.0	+9.0	9.1 Dec
Malaysia	+7.1 Q1	na	+5.8	+5.8	+4.3 Apr	+3.8 May	+1.4	+2.8	3.0 Q4
Pakistan	+7.0 2007**	na	+4.6	+5.1	+4.3 Apr	+19.3 May	+7.4	+12.1	6.2 2006
Singapore	+6.7 Q1	+14.6	+4.5	+5.0	-5.7 Apr	+7.5 Apr	+0.6	+4.3	2.0 Q1
South Korea	+5.8 Q1	+3.3	+4.5	+4.3	+10.5 Apr	+4.9 May	+2.3	+2.9	3.2 May
Taiwan	+6.1 Q1	na	+4.3	+4.4	+9.6 Apr	+3.7 May	nil	+2.6	3.9 Apr
Thailand	+6.0 Q1	+5.9	+4.8	+4.6	+10.1 Apr	+7.6 May	+1.9	+6.2	1.5 Feb
Argentina	+8.4 Q1	+2.4	+6.3	+4.5	+8.6 Apr	+9.1 May	+8.8	+10.3	8.4 Q1 <sup>††</sup>
Brazil	+5.8 Q1	+2.9	+4.6	+3.8	+10.1 Apr	+5.6 May	+3.2	+5.2	8.5 Apr <sup>††</sup>
Chile	+4.0 Q4	+3.7	+3.8	+4.2	+4.4 Apr	+8.9 May	+2.9	+6.7	7.6 Apr <sup>†††</sup>
Colombia	+8.1 Q4	+6.8	+5.0	+4.5	+9.8 Apr	+6.4 May	+6.2	+6.0	11.0 Apr <sup>††</sup>
Mexico	+2.6 Q1	+2.1	+2.3	+2.5	+5.5 Apr	+4.9 May	+3.9	+4.7	3.6 Apr <sup>††</sup>
Venezuela	+4.8 Q1	na	+6.1	+4.9	-7.9 Mar	+31.4 May	+19.6	+29.6	8.2 Q1 <sup>††</sup>
Egypt	+6.9 Q1	na	+6.9	+6.8	+7.5 2007**	+19.7 May	+10.0	+15.5	9.0 Q4 <sup>††</sup>
Israel	+5.2 Q1	+5.4	+3.9	+3.6	+9.3 Mar	+5.4 May	-1.3	+4.2	6.3 Q1
Saudi Arabia	+3.5 2007	na	+6.0	+5.6	na	+10.5 Apr	+2.9	+8.5	na
South Africa	+4.0 Q1	+2.1	+3.9	+4.4	+9.8 Apr	+11.1 Apr	+7.0	+8.2	23.0 Sep <sup>††</sup>
<b>MORE COUNTRIES</b> Data for the countries below are not provided in printed editions of <i>The Economist</i>									
Estonia	+0.1 Q1	+7.8	-0.6	+2.0	-0.2 Apr	+11.3 May	+5.7	+10.0	4.1 Apr
Finland	+3.1 Q1	+2.8	+2.7	+2.4	+7.8 Apr	+4.2 May	+2.4	+3.0	5.8 Apr
Iceland	+1.1 Q1	-14.0	+1.1	+1.7	+0.4 2007	+12.3 May	+4.7	+10.0	1.0 May <sup>††</sup>
Ireland	+3.5 Q4	-3.3	+1.4	+1.5	-0.9 Apr	+4.7 May	+5.0	+3.2	5.4 May
Latvia	+3.3 Q1	na	+2.4	+3.0	+3.7 Apr	+17.9 May	+8.2	+13.2	5.1 Apr
Lithuania	+6.9 Q1	-0.8	+5.6	+5.0	na	+12.0 May	+4.8	+10.2	4.5 Apr <sup>††</sup>
Luxembourg	+3.8 Q4	+7.4	+3.9	+3.6	+8.8 Apr	+4.0 May	+1.9	+3.4	4.2 Apr <sup>††</sup>
New Zealand	+2.8 Q4	+3.1	+1.4	+2.3	+4.2 Q4	+3.4 Q1	+2.5	+3.3	3.6 Q1
Peru	+6.6 Apr	na	+7.5	+6.4	+16.5 Apr	+5.4 May	+0.9	+4.8	8.5 Apr <sup>††</sup>
Philippines	+5.1 Q1	+3.0	+5.6	+5.7	-5.9 Mar	+9.6 May	+2.4	+6.8	8.0 Apr <sup>††</sup>
Portugal	+0.9 Q1	-1.0	+1.5	+1.6	+1.5 Apr	+2.8 May	+2.4	+2.4	7.6 Q1 <sup>††</sup>
Slovakia	+8.7 Q1	na	+7.5	+5.2	+9.7 Apr	+4.6 May	+2.3	+3.5	7.4 May <sup>††</sup>
Slovenia	+5.4 Q1	na	+4.5	+4.0	+6.9 Apr	+6.4 May	+2.9	+5.4	6.6 Apr <sup>††</sup>

\*% change on previous quarter, annual rate. †The Economist poll or Economist Intelligence Unit estimate/forecast. †National definitions. - §RPI inflation rate 4.2% in Apr. \*\*Year ending June. ††Latest three months. †††Not seasonally adjusted. \*\*\*Centred 3-month average

Sources: National statistics offices and central banks; Thomson Datastream; Reuters; Centre for Monitoring Indian Economy; OECD; ECB

# The Economist commodity-price index

Jun 19th 2008  
From The Economist print edition

## The Economist commodity-price index

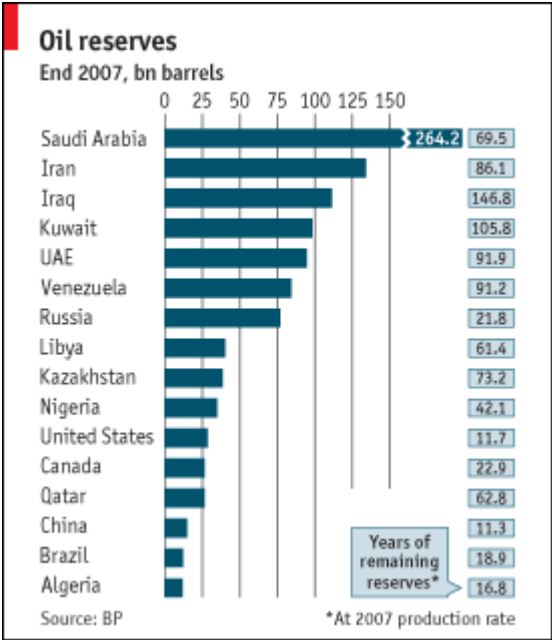
2000=100

			% change on	
	Jun 10th	Jun 17th*	one month	one year
<b>Dollar index</b>				
All items	256.7	267.7	+4.7	+31.6
Food	262.4	278.0	+9.3	+61.7
<b>Industrials</b>				
All	249.1	254.4	-1.2	+4.2
Nfa†	201.3	209.7	+4.9	+28.0
Metals	275.4	278.9	-3.5	-3.2
<b>Sterling index</b>				
All items	199.3	207.9	+5.5	+33.9
<b>Euro index</b>				
All items	153.3	159.7	+5.6	+13.8
<b>Gold</b>				
\$ per oz	871.75	881.20	-3.9	+34.1
<b>West Texas Intermediate</b>				
\$ per barrel	131.69	133.76	+3.7	+93.6

\*Provisional †Non-food agriculturals.

Oil reserves

Jun 19th 2008  
From The Economist print edition



Over 60% of the world's proven oil reserves—those that can be recovered from known oil fields using existing technology—are in the Middle East, according to BP, a British oil giant. Add in Russia and Venezuela, and the share rises to 74%. Saudi Arabia alone accounts for over a fifth of the total. At today's rates of production, the world has enough oil to last for almost 42 years, a slight improvement on last year. But the reserves reported by Middle Eastern countries, in particular, have remained remarkably stable over the years. That implies either that they are discovering new fields at exactly the same pace as they are exploiting their existing ones, or that they are not providing very accurate data.



## **Trade, exchange rates, budget balances and interest rates**

Jun 19th 2008

From The Economist print edition

## Trade, exchange rates, budget balances and interest rates

	Trade balance*	Current-account balance		Currency units, per \$		Budget balance	Interest rates, %	
	latest 12 months, \$bn	latest 12 months, \$bn	% of GDP 2008†	Jun 18th	year ago	% of GDP 2008†	3-month latest	10-year gov't bonds, latest
United States	-831.2 Apr	-710.7 Q1	-4.9	-	-	-2.4	2.14	4.15
Japan	+100.3 Apr	+213.5 Apr	+4.3	107	124	-2.9	0.75	1.79
China	+254.2 May	+371.8 2007	+9.8	6.92	7.62	0.3	4.47	4.50
Britain	-184.5 Apr	-115.4 Q4	-3.9	0.51	0.50	-3.2	5.93	5.15
Canada	+45.6 Apr	+14.5 Q1	+0.2	1.02	1.06	0.4	2.63	3.89
Euro area	+17.3 Apr	+5.3 Mar	-0.1	0.64	0.75	-0.9	4.96	4.59
Austria	+0.9 Mar	+12.2 Q4	+3.0	0.64	0.75	-0.4	4.96	4.81
Belgium	+12.3 Mar	+2.7 Dec	+2.1	0.64	0.75	-0.3	5.03	4.91
France	-61.6 Apr	-39.9 Apr	-1.6	0.64	0.75	-2.9	4.96	4.78
Germany	+278.7 Apr	+269.8 Apr	+6.1	0.64	0.75	1.1	4.96	4.60
Greece	-60.2 Mar	-45.2 Mar	-13.7	0.64	0.75	-2.6	4.96	5.18
Italy	-12.7 Apr	-57.0 Mar	-2.5	0.64	0.75	-2.6	4.96	5.18
Netherlands	+59.3 Apr	+50.7 Q4	+6.0	0.64	0.75	0.7	4.96	4.78
Spain	-147.1 Mar	-159.3 Mar	-9.1	0.64	0.75	-0.7	4.96	4.88
Czech Republic	+4.7 Apr	-3.6 Apr	-2.9	15.7	21.4	-2.5	4.23	5.05
Denmark	+4.2 Apr	+3.5 Apr	+1.0	4.80	5.55	3.6	5.60	4.92
Hungary	+0.5 Apr	-6.9 Q4	-5.9	159	185	-4.2	8.99	9.00
Norway	+70.7 May	+68.8 Q1	+17.5	5.15	5.99	17.8	6.28	4.98
Poland	-17.8 Apr	-19.9 Apr	-3.8	2.18	2.82	-2.1	6.01	6.39
Russia	+157.9 Apr	+92.4 Q1	+5.2	23.7	25.9	3.5	10.75	6.47
Sweden	+18.9 Apr	+40.4 Q1	+7.2	6.03	6.90	2.1	4.09	4.44
Switzerland	+14.6 May	+71.1 Q4	+14.8	1.03	1.24	0.9	2.92	3.35
Turkey	-68.6 Apr	-42.0 Apr	-6.5	1.26	1.30	-2.9	19.42	6.96‡
Australia	-22.5 Apr	-61.4 Q1	-5.9	1.06	1.18	1.6	7.76	6.61
Hong Kong	-24.4 Apr	+28.0 Q4	+9.1	7.81	7.81	2.9	2.35	3.72
India	-80.5 Apr	-12.8 Q4	-2.4	42.9	40.8	-3.2	7.66	8.73
Indonesia	+38.1 Apr	+10.9 Q1	+2.3	9,305	8,945	-2.1	9.31	7.48‡
Malaysia	+33.4 Apr	+28.9 Q4	+12.5	3.27	3.43	-3.1	3.69	4.57‡
Pakistan	-19.8 May	-10.5 Q1	-8.8	67.1	60.6	-4.7	13.04	11.50‡
Singapore	+29.6 May	+35.8 Q1	+24.4	1.37	1.54	1.0	1.25	3.42
South Korea	+5.3 May	+2.9 Apr	+0.3	1,030	928	0.5	5.36	5.76
Taiwan	+13.9 May	+32.2 Q1	+5.4	30.4	33.1	-1.8	2.73	2.75
Thailand	+6.3 Apr	+11.7 Apr	+3.2	33.1	34.6	-3.1	3.60	5.52
Argentina	+11.7 Apr	+7.2 Q4	+2.4	3.06	3.08	1.8	16.44	na
Brazil	+31.9 May	-14.7 Apr	-1.1	1.65	1.91	-1.9	12.17	6.16‡
Chile	+19.1 May	+4.3 Q1	+2.5	486	524	7.0	6.72	4.82‡
Colombia	+0.4 Mar	-5.9 Q4	-3.4	1,704	1,897	-1.6	9.80	5.91‡
Mexico	-9.6 Apr	-4.8 Q1	-1.2	10.4	10.8	nil	7.56	8.73
Venezuela	+30.1 Q1	+26.7 Q1	+7.0	3.30	4.23§	2.1	18.07	6.55‡
Egypt	-20.5 Q4	+0.5 Q4	+0.2	5.36	5.70	-7.1	9.47	4.68‡
Israel	-13.2 May	+4.4 Q1	+0.2	3.40	4.21	-1.3	3.70	5.50
Saudi Arabia	+150.8 2007	+95.0 2007	+38.4	3.75	3.75	26.2	3.34	na
South Africa	-11.1 Apr	-20.6 Q4	-8.0	8.03	7.09	0.4	12.40	10.58
<b>MORE COUNTRIES</b> Data for the countries below are not provided in printed editions of <i>The Economist</i>								
Estonia	-4.4 Mar	-3.3 Apr	-12.7	10.1	11.7	0.2	6.47	na
Finland	+12.3 Mar	+10.5 Apr	+3.9	0.64	0.75	4.7	4.80	4.79
Iceland	-1.4 May	-3.5 Q1	-12.2	77.6	62.1	0.7	15.82	na
Ireland	+36.7 Mar	-12.7 Q4	-4.0	0.64	0.75	-0.9	4.96	4.94
Latvia	-7.3 Apr	-6.2 Apr	-13.2	0.45	0.52	nil	5.86	na
Lithuania	-7.8 Apr	-5.8 Apr	-11.5	2.22	2.57	-0.7	5.54	na
Luxembourg	-6.3 Mar	+3.9 Q4	na	0.64	0.75	1.5	4.96	na
New Zealand	-3.5 Apr	-10.2 Q4	-7.0	1.32	1.31	1.9	7.65	6.40
Peru	+8.0 Apr	+0.8 Q1	+0.4	2.88	3.17	1.6	5.50	na
Philippines	-7.3 Mar	+6.4 Dec	+4.1	44.5	45.9	-0.5	6.44	na
Portugal	-29.3 Mar	-24.5 Mar	-8.3	0.64	0.75	-2.5	4.96	5.01
Slovakia	-1.1 Apr	-4.2 Feb	-3.3	19.5	25.1	-2.1	3.97	5.12
Slovenia	-3.4 Apr	-2.8 Mar	-4.0	0.64	0.75	-0.2	na	na

\*Merchandise trade only. †The Economist poll or Economist Intelligence Unit forecast. ‡Dollar-denominated bonds. §Unofficial exchange rate.

Sources: National statistics offices and central banks; Thomson Datastream; Reuters; JPMorgan; Bank Leumi le-Israel; Centre for Monitoring Indian Economy; Danske Bank; Hong Kong Monetary Authority; Standard Bank Group; UBS; Westpac.

## Markets

Jun 19th 2008

From The Economist print edition

## Markets

	Index Jun 18th	% change on		
		one week	in local currency	in \$ terms
United States (DJIA)	12,029.1	-0.5	-9.3	-9.3
United States (S&P 500)	1,337.8	+0.2	-8.9	-8.9
United States (NAScomp)	2,429.7	+1.5	-8.4	-8.4
Japan (Nikkei 225)	14,452.8	+1.9	-5.6	-2.2
Japan (Topix)	1,409.6	+1.4	-4.5	-1.1
China (SSEA)	3,085.4	-2.7	-44.1	-40.7
China (SSEB, \$ terms)	218.3	-4.1	-43.8	-40.3
Britain (FTSE 100)	5,756.9	+0.6	-10.8	-12.3
Canada (S&P TSX)	15,073.1	+2.4	+9.0	+5.4
Euro area (FTSE Euro 100)	1,108.2	-0.2	-19.4	-14.5
Euro area (DJ STOXX 50)	3,508.0	nil	-20.3	-15.4
Austria (ATX)	4,193.7	+2.3	-7.1	-1.4
Belgium (Bel 20)	3,520.7	-0.7	-14.7	-9.5
France (CAC 40)	4,618.8	-0.9	-17.7	-12.7
Germany (DAX)*	6,728.9	+1.2	-16.6	-11.5
Greece (Athex Comp)	3,662.4	-5.6	-29.3	-24.9
Italy (S&P/MIB)	30,464.0	-0.9	-21.0	-16.1
Netherlands (AEX)	450.6	-1.3	-12.6	-7.3
Spain (Madrid SE)	1,361.4	+0.4	-17.1	-12.0
Czech Republic (PX)	1,623.7	+2.4	-10.5	+5.1
Denmark (OMXC20)	414.1	+1.5	-7.7	-2.1
Hungary (BUX)	21,403.0	+0.6	-18.4	-10.2
Norway (OSEAX)	567.9	+2.7	-0.4	+4.4
Poland (WIG)	42,925.3	-0.1	-22.9	-12.8
Russia (RTS, \$ terms)	2,402.7	+2.0	+1.1	+4.9
Sweden (Aff.Gen)	294.2	+0.4	-13.6	-7.7
Switzerland (SMI)	7,182.6	+0.2	-15.3	-7.8
Turkey (ISE)	38,136.8	-0.3	-31.3	-34.6
Australia (All Ord.)	5,550.3	-0.2	-13.6	-6.6
Hong Kong (Hang Seng)	23,325.8	nil	-16.1	-16.2
India (BSE)	15,422.3	+1.6	-24.0	-30.2
Indonesia (JSX)	2,364.6	-0.4	-13.9	-12.9
Malaysia (KLSE)	1,212.6	-1.4	-16.1	-14.8
Pakistan (KSE)	12,261.1	-5.8	-12.9	-19.8
Singapore (STI)	3,040.1	-0.2	-12.3	-7.8
South Korea (KOSPI)	1,774.1	-0.4	-6.5	-14.9
Taiwan (TWI)	8,217.6	-1.5	-3.4	+3.3
Thailand (SET)	765.7	-3.3	-10.8	-9.7
Argentina (MERV)	2,048.1	-1.2	-4.8	-0.8
Brazil (BVSP)	67,090.0	+0.4	+5.0	+15.7
Chile (IGPA)	14,758.0	+3.2	+4.8	+6.1
Colombia (IGBC)	9,475.4	-2.4	-11.4	+8.3
Mexico (IPC)	29,618.1	-2.7	+0.3	+6.3
Venezuela (IBC)	36,720.8	nil	-3.1	-37.0
Egypt (Case 30)	10,539.3	-0.9	+0.7	+3.9
Israel (TA-100)	1,036.9	+2.0	-10.2	+2.8
Saudi Arabia (Tadawul)	9,778.5	+3.0	+23.3	+23.3
South Africa (JSE AS)	30,981.8	+1.1	+7.0	-9.2
Europe (FTSEurofirst 300)	1,251.0	+0.1	-17.0	-11.9
World, dev'd (MSCI)	1,456.8	+0.3	-8.3	-8.3
Emerging markets (MSCI)	1,138.8	+0.7	-8.6	-8.6
World, all (MSCI)	369.6	+0.3	-8.3	-8.3
World bonds (Citigroup)	753.3	-0.3	+3.1	+3.1
EMBI+ (JPMorgan)	437.9	-0.5	+1.0	+1.0
Hedge funds (HFRX)	1,327.7	+0.3	-0.2	-0.2
Volatility, US (VIX)	27.3	24.1	22.5 (levels)	
CDSs, Eur (iTRAXX)†	85.3	-7.9	+68.4	+78.8
CDSs, N Am (CDX)†	118.0	-4.1	+34.7	+34.7
Carbon trading (EU ETS) €	27.5	+0.7	+23.8	+31.4

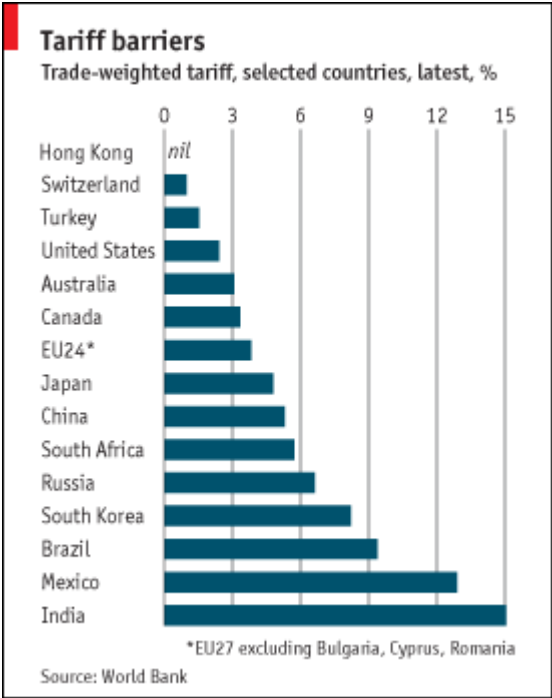
\*Total return index. †Credit-default swap spreads, basis points.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Reuters; WM/Reuters; JPMorgan Chase; Bank Leumi le-Israel; CBOE; CMIE; Danske Bank; EEX; HKMA; Markit; Standard Bank Group; UBS; Westpac.



# Tariff barriers

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Hong Kong and Singapore have the least restrictive trade policies, according to the 2008 *World Trade Indicators* published by the World Bank. For each country in its rankings, the bank calculates a representative tariff that, if applied on all imports, would leave the level of inward trade unchanged. Small, rich economies, such as Switzerland, tend to be the least protectionist. Turkey stands out as a big country with low tariff barriers—lower even than America's. Of the fast-growing BRICs, China is the most open to inward trade, followed by Russia. Brazil and (especially) India are protectionist by comparison. Mexico and South Korea have high tariff barriers compared with other members of the mostly rich OECD.